

EAU APR 13

PROJECT ID: 1721-01-61

COUNTY: PIERCE

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 5	Plan (Includes Erosion Control Plans)
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 308

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PEPIN - HAGER CITY

SOUTH COUNTY LINE TO USH 63 NB

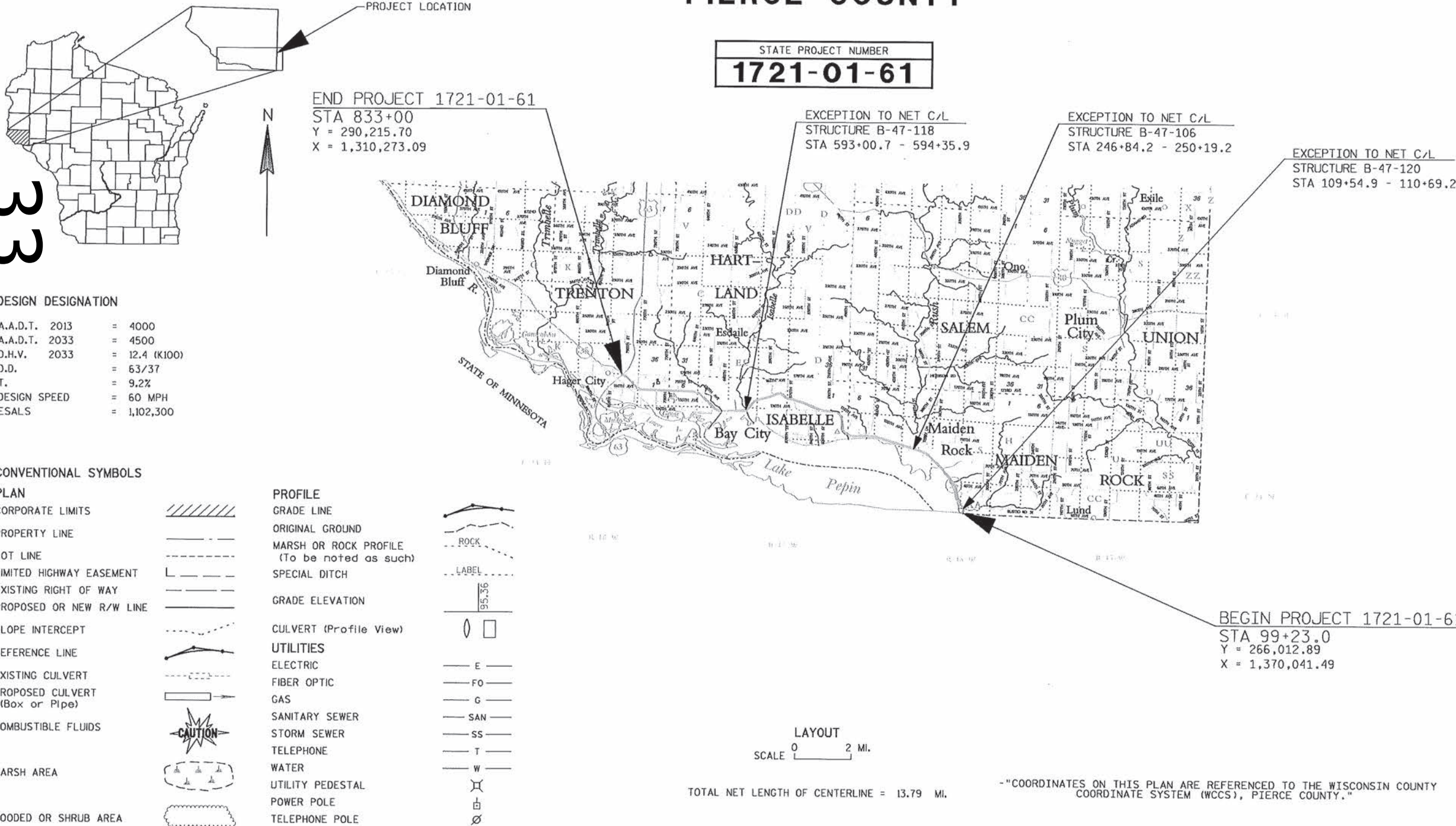
STH 35

PIERCE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1721-01-61		

STATE PROJECT NUMBER

1721-01-61



DESIGN DESIGNATION

A.A.D.T. 2013	=	4000
A.A.D.T. 2033	=	4500
D.H.V. 2033	=	12.4 (K100)
D.D.	=	63/37
T.	=	9.2%
DESIGN SPEED	=	60 MPH
ESALS	=	1,102,300

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	- - - -
LIMITED HIGHWAY EASEMENT	L---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SLOPE INTERCEPT	---
REFERENCE LINE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

LAYOUT

SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 13.79 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), PIERCE COUNTY."

ORIGINAL PLANS PREPARED BY

KNIGHT

Engineers & Architects

700 N Third Street
Suite 104
La Crosse, WI 54601-3382
Phone: (608) 519-1455



10/23/2012 (Date)

(Signature)

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	KNIGHT E/A INC
Designer	KNIGHT E/A INC
Project Manager	WENDY MAVES
Regional Examiner	DAVID SOLBERG
Regional Supervisor	DAVID SOLBERG

APPROVED FOR THE DEPARTMENT

DATE: 10/26/12 (Signature)

E

STANDARD ABBREVIATIONS

AC	ACRE	CWT	HUNDREDWEIGHT
AGG	AGGREGATE	INL	INLET
AH	AHEAD	INV	INVERT
AADT	ANNUAL AVERAGE DAILY TRAFFIC	JCT	JUNCTION
ASPH	ASPHALTIC	LT	LEFT
AVG	AVERAGE	L	LENGTH OF CURVE
BK	BACK	LIN FT or LF	LINEAR FOOT
BM	BENCH MARK	LS	LUMP SUM
BR	BRIDGE	NC	NORMAL CROWN
CL or C/L	CENTER LINE	N	NORTH
CE	COMMERCIAL ENTRANCE	NB	NORTHBOUND
CONC	CONCRETE	NO	NUMBER
CPCA	CULVERT PIPE CORRUGATED ALUMINUM	PT	POINT
CPCS	CULVERT PIPE CORRUGATED STEEL	PCC	POINT OF COMPOUND CURVE
CO	COUNTY	PC	POINT OF CURVATURE
CTH	COUNTY TRUNK HIGHWAY	PI	POINT OF INTERSECTION
CR	CREEK	PT	POINT OF TANGENCY
CABC	CRUSHED AGGREGATE BASE COURSE	PCC	PORTLAND CEMENT CONCRETE
CY or CUYD	CUBIC YARD	LB	POUND
CULV	CULVERT	PE	PRIVATE ENTRANCE
CP	CULVERT PIPE	R	RADIUS
CPCP	CULVERT PIPE CORRUGATED POLYETHYLENE	RL or R/L	REFERENCE LINE
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED	RT	RIGHT
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED	R/W	RIGHT-OF-WAY
CPRC	CULVERT PIPE REINFORCED CONCRETE	RD	ROAD
C & G	CURB AND GUTTER	SHLDR	SHOULDER
D	DEGREE OF CURVE	SB	SOUTHBOUND
DIA	DIAMETER	SF or SQ FT	SQUARE FEET
DISCH	DISCHARGE	SY or SQ YD	SQUARE YARD
E	EAST	SDD	STANDARD DETAIL DRAWINGS
EB	EASTBOUND	STH	STATE TRUNK HIGHWAYS
EL or ELEV	ELEVATION	SE	SUPERELEVATION
EW	ENDWALL	T	TANGENT
ENT	ENTRANCE	TEMP	TEMPORARY
EXC	EXCAVATION	USH	UNITED STATES HIGHWAY
EX	EXISTING	V	VELOCITY OR DESIGN SPEED
FERT	FERTILIZE	VC	VERTICAL CURVE
FE	FIELD ENTRANCE	WB	WESTBOUND
FL or F/L	FLOW LINE	YD	YARD
FT	FOOT		

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE SALVAGED TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

HMA PAVEMENT TYPE E-3 SPECIAL SHALL CONSIST OF A 2-1/4" LOWER LAYER WITH AC PG 58-34P AND 1-3/4" UPPER LAYER WITH AC PG 64-34P.

THE LATEST APPROVED DOT C/L WEDGE JOINT SHOULD NOT BE USED ON THE UPPER LAYER WITHIN THE FINAL PAVEMENT STRUCTURE. THE CONTRACTOR SHOULD MILL OUT ANY WEDGE USED FOR TRAFFIC STAGING PRIOR TO PLACING THE ADJACENT LANE.

WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 110 LB/SY/INCH.

PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.

LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.

ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

CURVE DATA IS BASED ON ARC DEFINITION.

"ASPHALTIC SURFACE" ITEM IS TO BE USED FOR LEVELING/WEDGING AND SPOT LANE REPAIR.

"ASPHALTIC SURFACE PATCHING" ITEM IS TO BE USED FOR RAMPING AT BUTT JOINT SAW CUTS, MISCELLANEOUS REPAIRS OF POTHOLES AND POPOUTS THAT OCCUR DURING CONSTRUCTION.

ALL PRIVATE DRIVEWAYS AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. LIMITS TO BE DETERMINED BY THE ENGINEER.

PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

SHAPING AND COMPACTING EXISTING SHOULDER MATERIAL PRIOR TO ADDING NEW SHOULDER MATERIAL, SHAPING AND COMPACTING GRAVEL SIDE ROADS, EXCAVATION, SHAPING AND DISPOSAL OF EXCESS MATERIAL AND REMOVAL OF EXISTING ASPHALTIC SURFACE TO NECESSARY LENGTHS AND DEPTHS AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE BID ITEM "PREPARE FOUNDATION FOR ASPHALTIC PAVING SPECIAL".

ALL DRIVEWAYS ARE TO BE ADJUSTED TO MATCH THE NEW MAINLINE PROFILE (SEE CONSTRUCTION DETAILS).

REMOVE ALL EXISTING CULVERT MARKER POSTS. "MARKERS CULVERT END" REQUIRED AT ALL CROSS CULVERT LOCATIONS.

UTILITY CONTACTS

Dan Sande
We Energies - Gas/Petroleum
333 W Everett St, A299
Milwaukee, WI 53203
(414) 221-4578
Dan.Sande@we-energies.com

Vern Yarwood
Hager Telecom, Inc -
Communication Line
W8108 165th Ave
P.O. Box 125
Hager City, WI 54014
(715) 792-2103

Nancy Dotson
Xcel Energy - Electricity-
transmission
1414 W Hamilton Ave
P.O. Box 8
Eau Claire, WI 54702-0008
(715) 737-2574
nancy.j.dotson@xcelenergy.com

Nancy Dotson
Xcel Energy - Electricity
1414 W Hamilton Ave
P.O. Box 8
Eau Claire, WI 54702-0008
(715) 737-2574
nancy.j.dotson@xcelenergy.com

Bay City Village of Water
Utility - Water
P.O. Box 9
Bay City, WI 54723-0009

Monty Parker
CenturyLink - Communication Line
20 S Wilson Ave
Rice Lake, WI 54868
(715) 234-5528
monty.parker@centurylink.com

Tom Stanton
Northern Natural Gas Company -
Gas/Petroleum
6579 420th St
Harris, MN 55032

Jerry Dewolfe
Pierce-Pepin Electric Cooperative
Electricity
W7725 Us Hwy 10
P.O. Box 420
Ellsworth, WI 54011
(715) 273-4460

Nancy Dotson
Xcel Energy - Communication Line
1414 W Hamilton Ave
P.O. Box 8
Eau Claire, WI 54702-0008
(715) 737-2574
nancy.j.dotson@xcelenergy.com

AREA CONTACTS

WISDNR: PIERCE COUNTY
NICK SCHAFF
EAU CLAIRE OFFICE
1300 W CLAIREMONT AVE
EAU CLAIRE, WI 54701
PHONE: (715) 839-1609

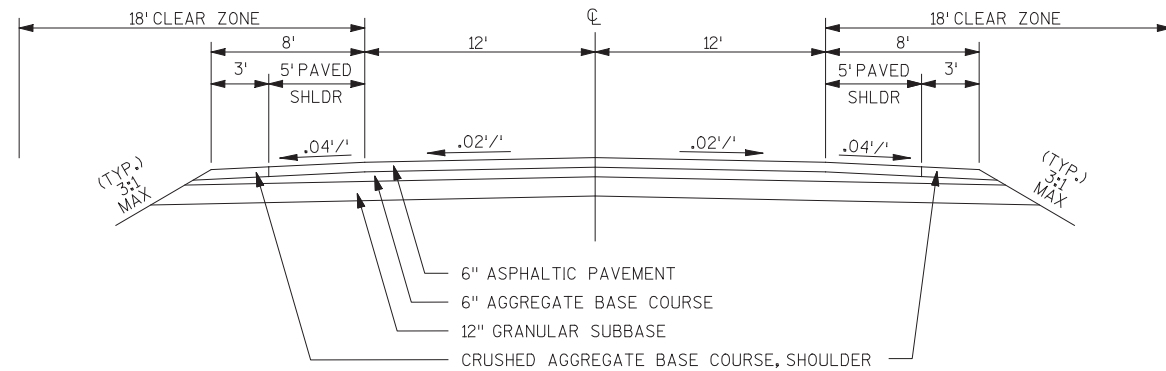
WisDOT NW Region
WENDY MAVES, P.E.
718 W. CLAIREMONT AVE
EAU CLAIRE, WI 54701
PHONE: (715) 836-3902

DESIGN CONTACT
KNIGHT E/A
RYAN MCKANE, P.E.
700 N THIRD ST., SUITE 104
LA CROSSE, WI 54601
PHONE: (608) 519-1455 EXT. #2

BNSF RAILWAY COMPANY
BEN STEINKAMP
MANAGER OF PUBLIC PROJECTS
80 44TH AVENUE NE
MINNEAPOLIS, MN 55421
PHONE: (763) 782-3495
FAX: (763) 782-3061
EMAIL: BENJAMIN.STEINKAMP@BNSF.COM

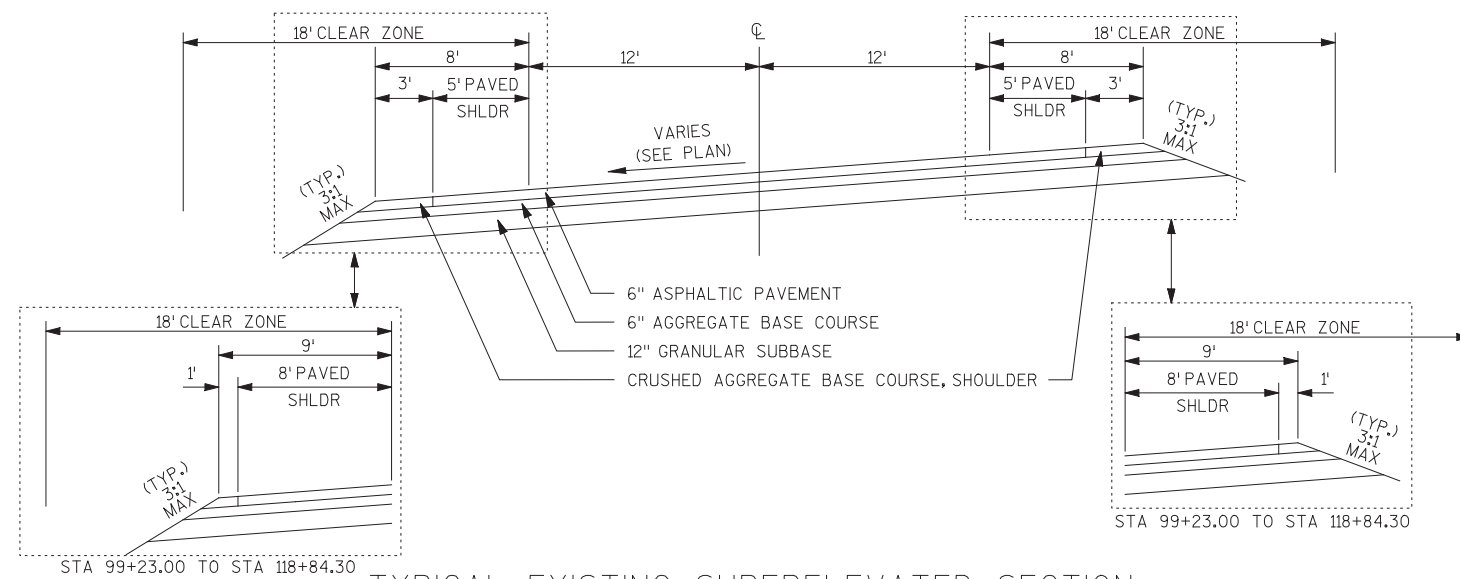


Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



TYPICAL EXISTING TANGENT SECTION

STA 118+84.30 TO STA 122+64.01
STA 132+12.50 TO STA 139+49.57
STA 148+65.34 TO STA 158+17.01
STA 163+49.65 TO STA 167+73.00
STA 223+19.57 TO STA 223+39.86
STA 239+52.09 TO STA 315+11.86
STA 341+26.82 TO STA 357+25.80
STA 368+58.04 TO STA 375+21.25
STA 389+19.98 TO STA 401+13.29
STA 422+21.02 TO STA 440+52.73
STA 450+04.37 TO STA 508+12.29
STA 514+01.98 TO STA 518+20.09
STA 529+88.00 TO STA 547+82.49
STA 553+23.29 TO STA 563+84.73
STA 581+83.47 TO STA 587+39.31
STA 655+49.11 TO STA 681+82.92
STA 703+49.59 TO STA 786+75.02
STA 804+56.35 TO STA 817+46.45

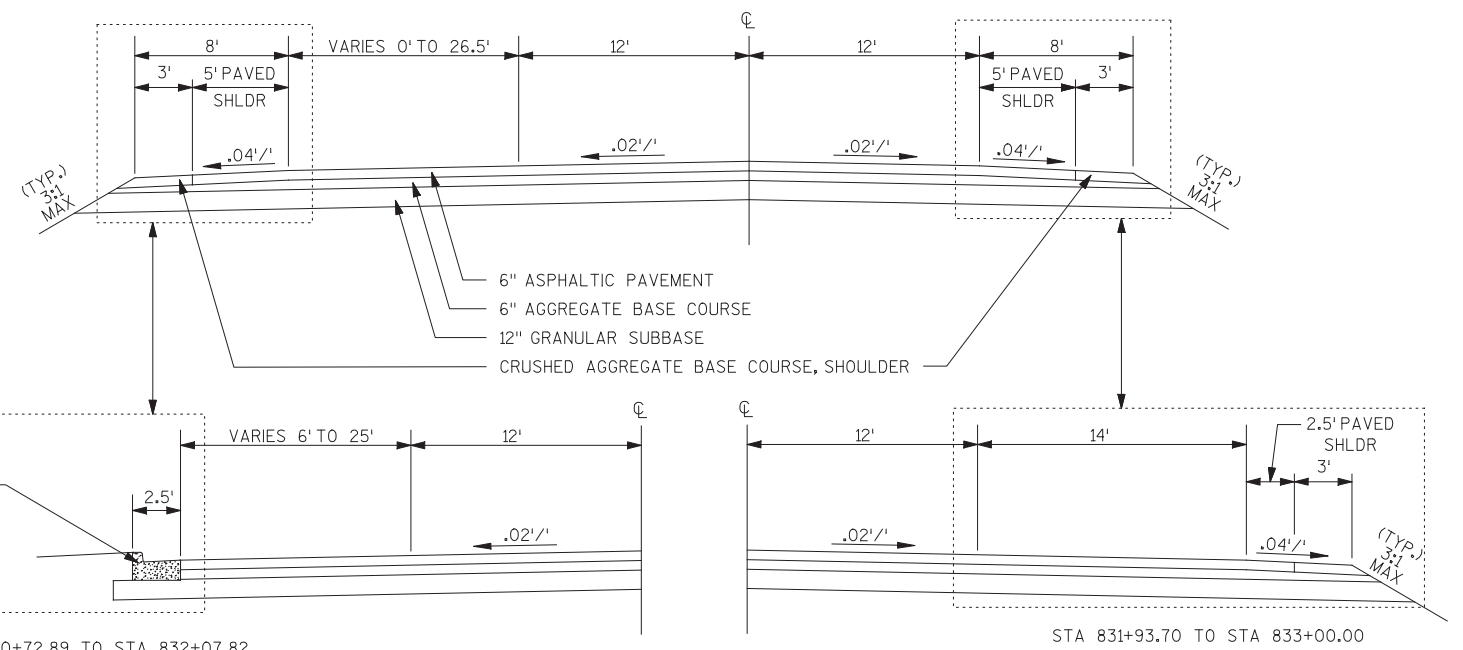


TYPICAL EXISTING SUPERELEVATED SECTION

STA 99+23.00 TO STA 118+84.30
STA 122+64.01 TO STA 132+12.50
STA 139+49.57 TO STA 148+65.34
STA 158+17.01 TO STA 163+49.65
STA 223+39.86 TO STA 239+52.09
STA 315+11.86 TO STA 341+26.82
STA 357+25.80 TO STA 368+58.04
STA 375+21.25 TO STA 389+19.98
STA 401+13.29 TO STA 422+21.02
STA 440+52.73 TO STA 450+04.37
STA 508+12.29 TO STA 514+01.98
STA 518+20.09 TO STA 529+88.00
STA 547+82.49 TO STA 553+23.29
STA 563+84.73 TO STA 581+83.47
STA 587+39.31 TO STA 597+28.00
STA 635+20.00 TO STA 655+49.11
STA 681+82.92 TO STA 703+49.59
STA 786+75.02 TO STA 804+56.35

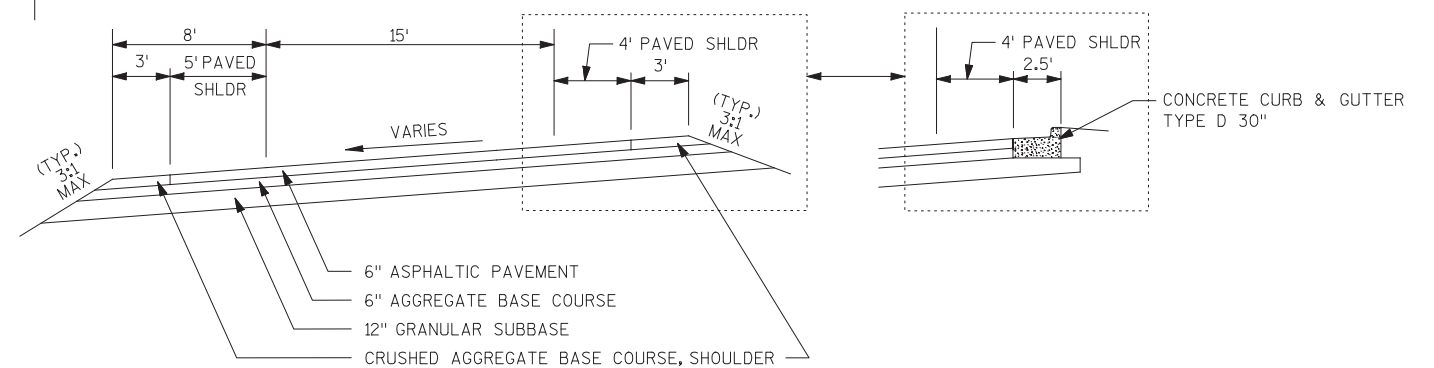
CONCRETE CURB & GUTTER
TYPE D 30"

STA 830+72.89 TO STA 832+07.82



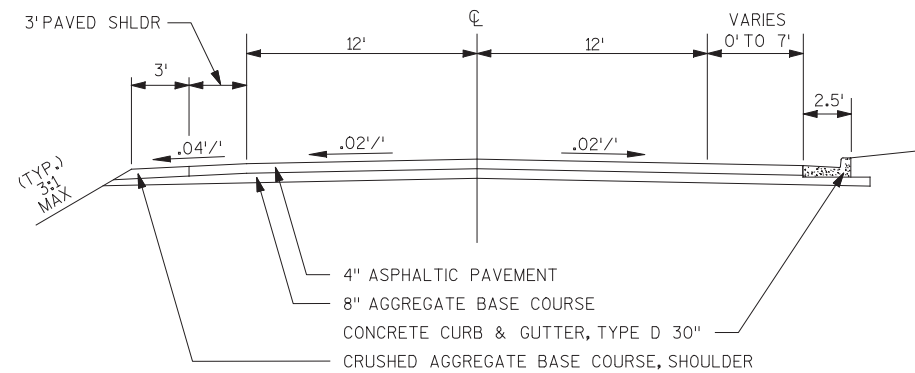
TYPICAL EXISTING TANGENT SECTION

STA 817+46.45 TO STA 833+00.00



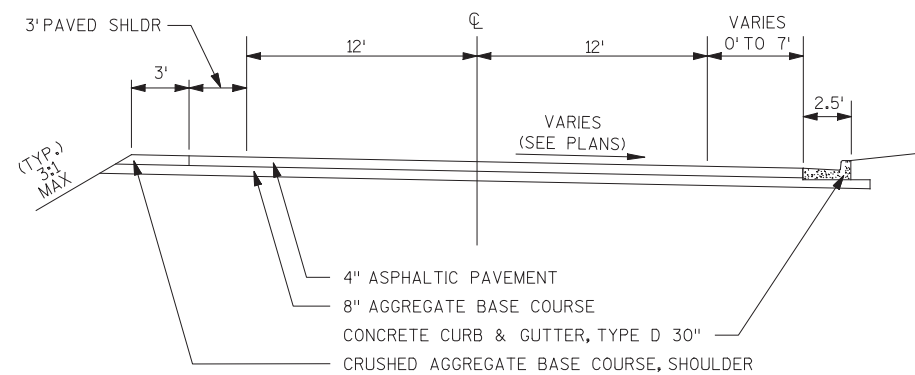
TYPICAL EXISTING RAMP SECTION

NB USH 63 TO SB STH 35 RAMP



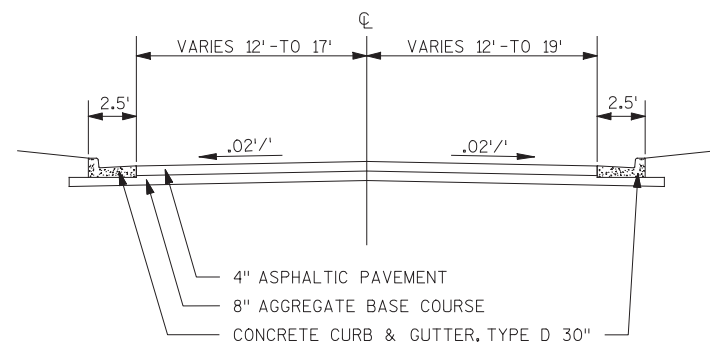
TYPICAL EXISTING SEMI-URBAN TANGENT SECTION - MAIDEN ROCK

STA 167+73.00 TO STA 168+07.99
STA 170+51.38 TO STA 175+03.50
STA 177+03.50 TO STA 184+71.28
STA 205+75.91 TO STA 223+19.57



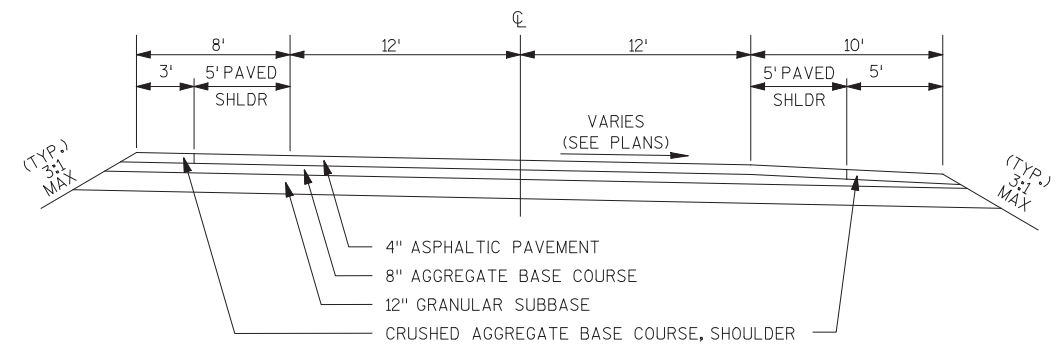
TYPICAL EXISTING SEMI-URBAN SUPERELEVATED SECTION - MAIDEN ROCK

STA 168+07.99 TO STA 170+51.38



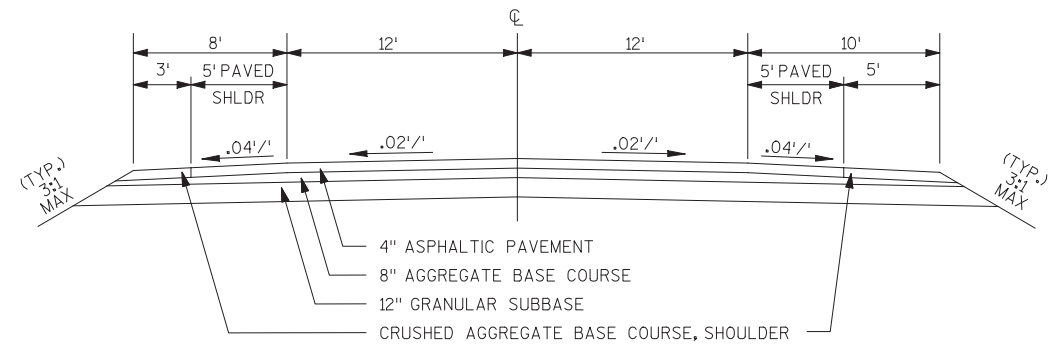
TYPICAL EXISTING URBAN SECTION - MAIDEN ROCK

STA 175+03.50 TO STA 177+03.50
STA 184+71.28 TO STA 205+75.91



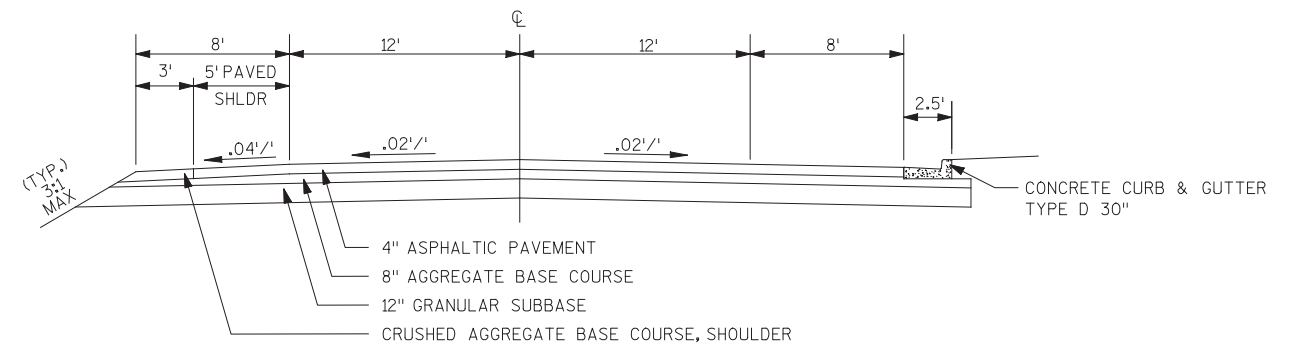
TYPICAL EXISTING RURAL SUPERELEVATED SECTION - BAY CITY

STA 598+28.00 TO STA 611+45.67



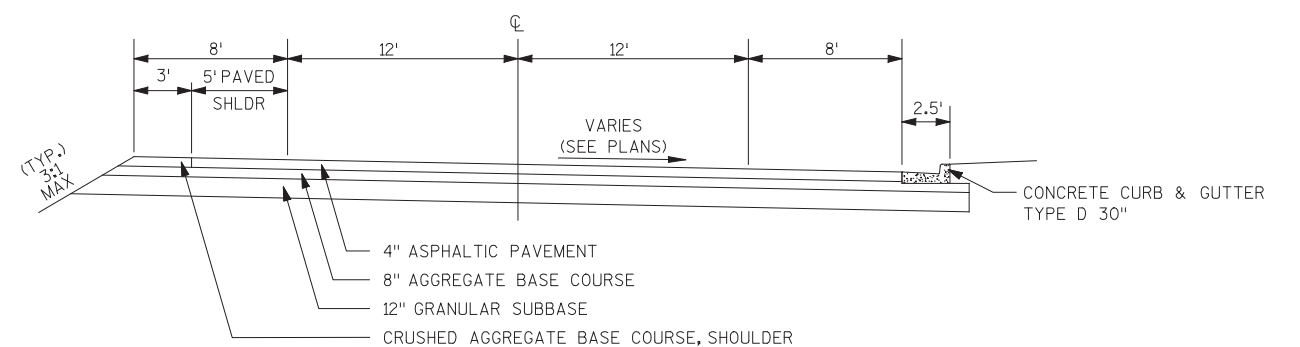
TYPICAL EXISTING RURAL TANGENT SECTION - BAY CITY

STA 598+28.00 TO STA 611+45.67



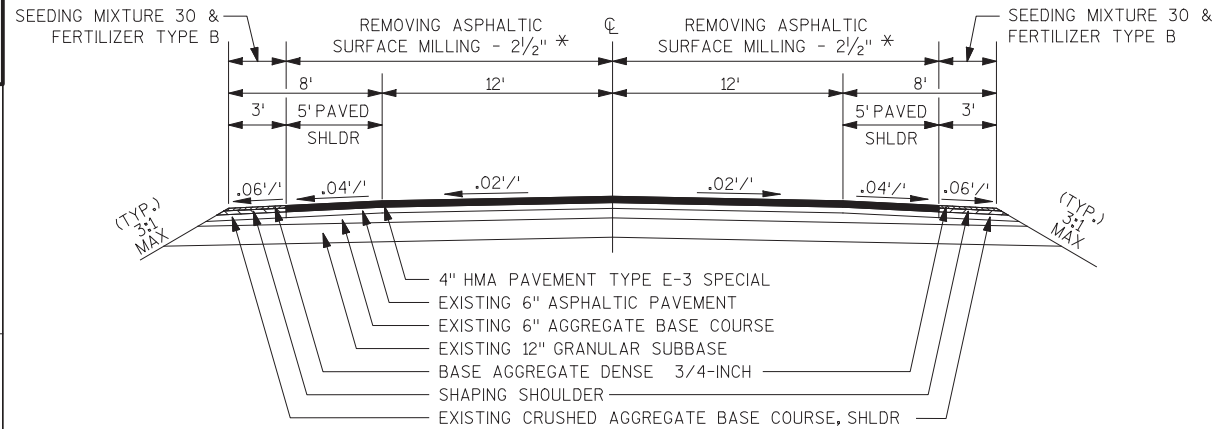
TYPICAL EXISTING SEMI-URBAN TANGENT SECTION - BAY CITY

STA 611+45.67 TO STA 631+57.45



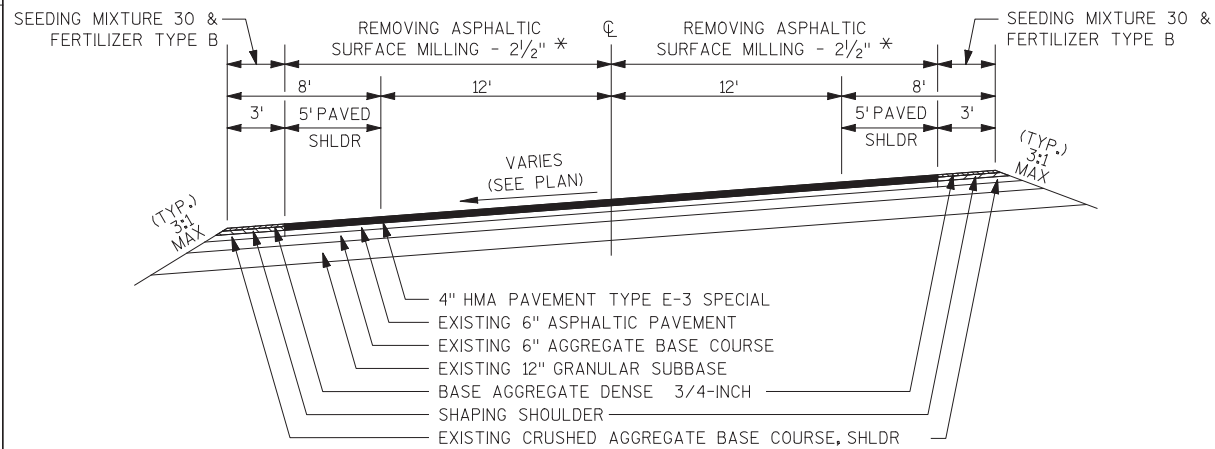
TYPICAL EXISTING SEMI-URBAN SUPERELEVATED SECTION - BAY CITY

STA 631+57.45 TO STA 635+20.00



TYPICAL FINISHED TANGENT SECTION

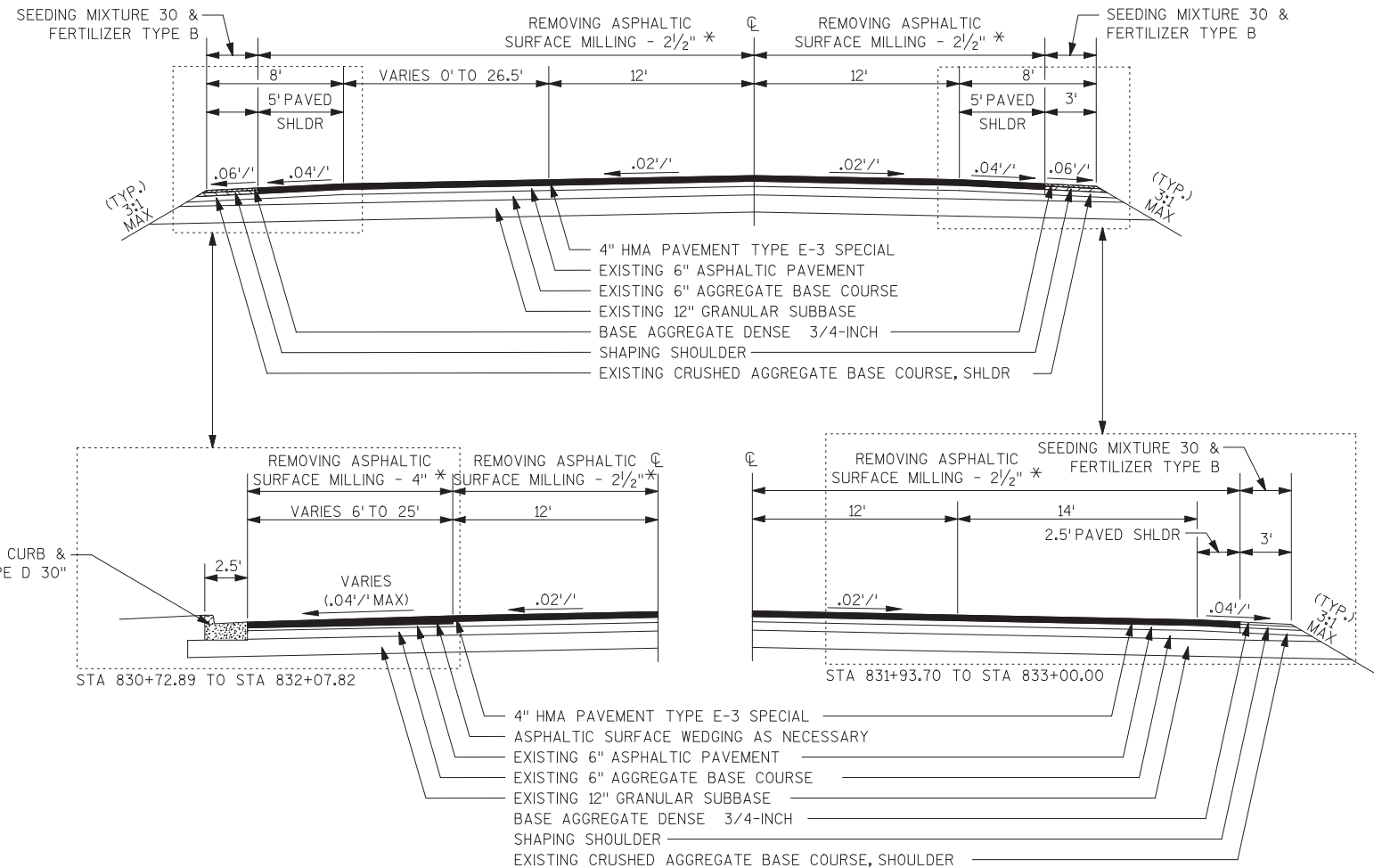
STA 118+84.30 TO STA 122+64.01	STA 422+21.02 TO STA 440+52.73
STA 132+12.50 TO STA 139+49.57	STA 450+04.37 TO STA 508+12.29
STA 148+65.34 TO STA 158+17.01	STA 514+01.98 TO STA 518+20.09
STA 163+49.65 TO STA 167+73.00	STA 529+88.00 TO STA 547+82.49
STA 223+19.57 TO STA 223+39.86	STA 553+23.29 TO STA 563+84.73
STA 239+52.09 TO STA 315+11.86	STA 581+83.47 TO STA 587+39.31
STA 341+26.82 TO STA 357+25.80	STA 655+49.11 TO STA 681+82.92
STA 368+58.04 TO STA 375+21.25	STA 703+49.59 TO STA 786+75.02
STA 389+19.98 TO STA 401+13.29	STA 804+56.35 TO STA 817+46.45



TYPICAL FINISHED SUPERELEVATED SECTION

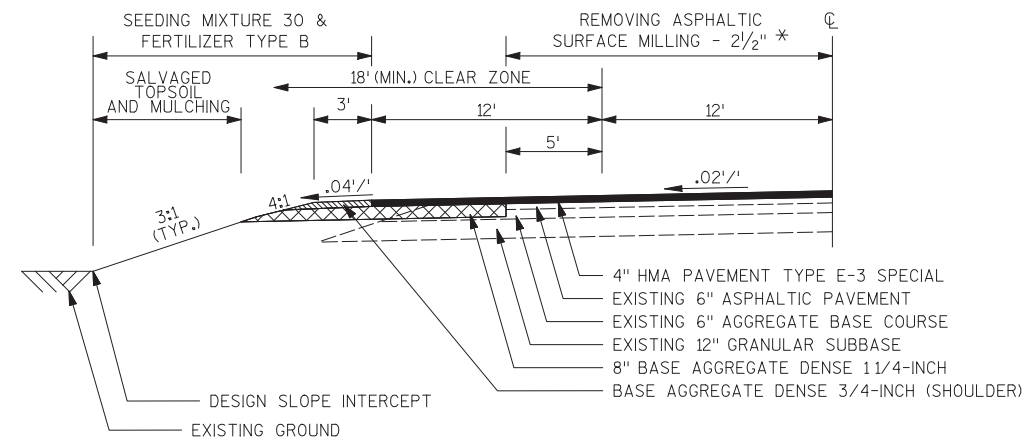
STA 99+23.00 TO STA 118+84.30	STA 440+52.73 TO STA 450+04.37
STA 122+64.01 TO STA 132+12.50	STA 508+12.29 TO STA 514+01.98
STA 139+49.57 TO STA 148+65.34	STA 518+20.09 TO STA 529+88.00
STA 158+17.01 TO STA 163+49.65	STA 547+82.49 TO STA 553+23.29
STA 223+39.86 TO STA 239+52.09	STA 563+84.73 TO STA 581+83.47
STA 315+11.86 TO STA 341+26.82	STA 587+39.31 TO STA 597+44.00
STA 357+25.80 TO STA 368+58.04	STA 635+20.00 TO STA 655+49.11
STA 375+21.25 TO STA 389+19.98	STA 681+82.92 TO STA 703+49.59
STA 401+13.29 TO STA 422+21.02	STA 786+75.02 TO STA 804+56.35

* NOTE: SURFACE MILL SLOPE SHALL MATCH SLOPE OF PROPOSED SURFACE HMA.



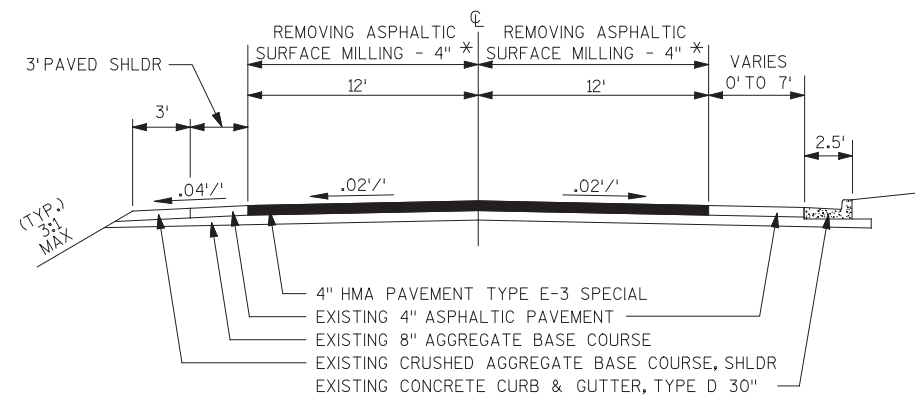
TYPICAL FINISHED TANGENT SECTION

STA 817+46.45 TO STA 833+00.00



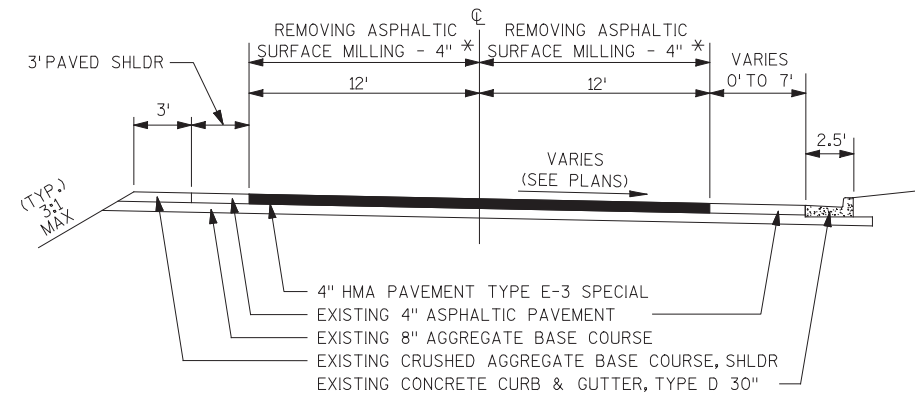
TYPICAL FINISHED RIGHT TURN LANE

STA 767+22.16 TO STA 765+34.66



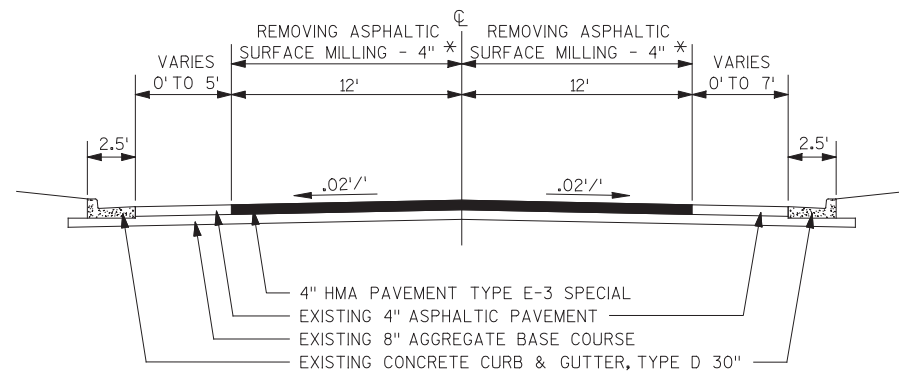
TYPICAL FINISHED SEMI-URBAN TANGENT SECTION - MAIDEN ROCK

STA 167+73.00 TO STA 168+07.99
STA 170+51.38 TO STA 175+03.50
STA 177+03.50 TO STA 184+71.28
STA 205+75.91 TO STA 223+19.57



TYPICAL FINISHED SEMI-URBAN SUPERELEVATED SECTION - MAIDEN ROCK

STA 168+07.99 TO STA 170+51.38



TYPICAL FINISHED URBAN SECTION - MAIDEN ROCK

STA 175+03.50 TO STA 177+03.50
STA 184+71.28 TO STA 205+75.91

* NOTE: SURFACE MILL SLOPE SHALL MATCH SLOPE OF PROPOSED SURFACE HMA.

PROJECT NO:1721-01-61

HWY: STH 35

COUNTY: PIERCE

TYPICAL SECTIONS

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

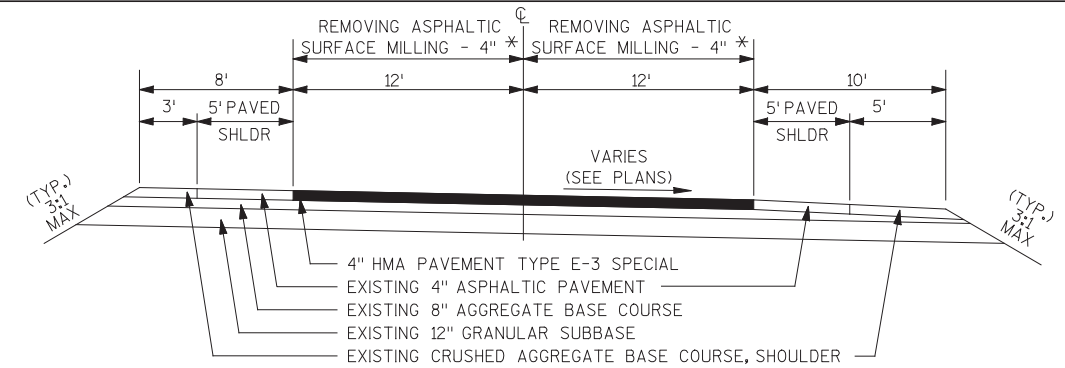
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

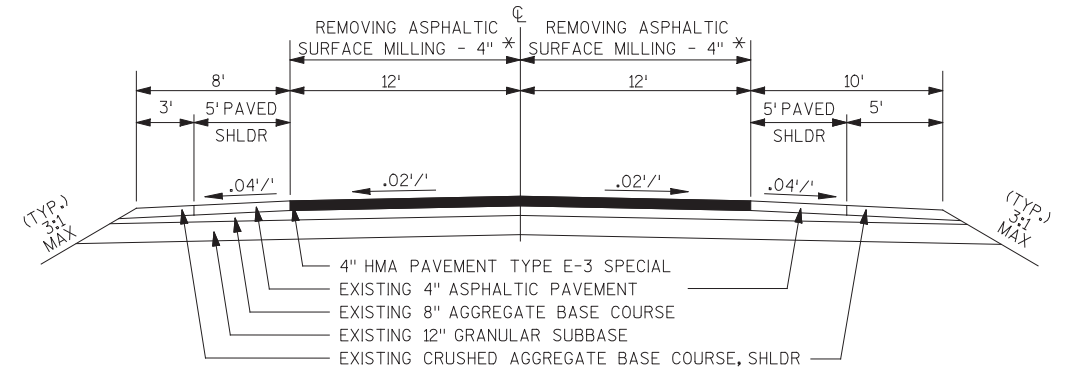
WISDOT/CAD 7

ET 42



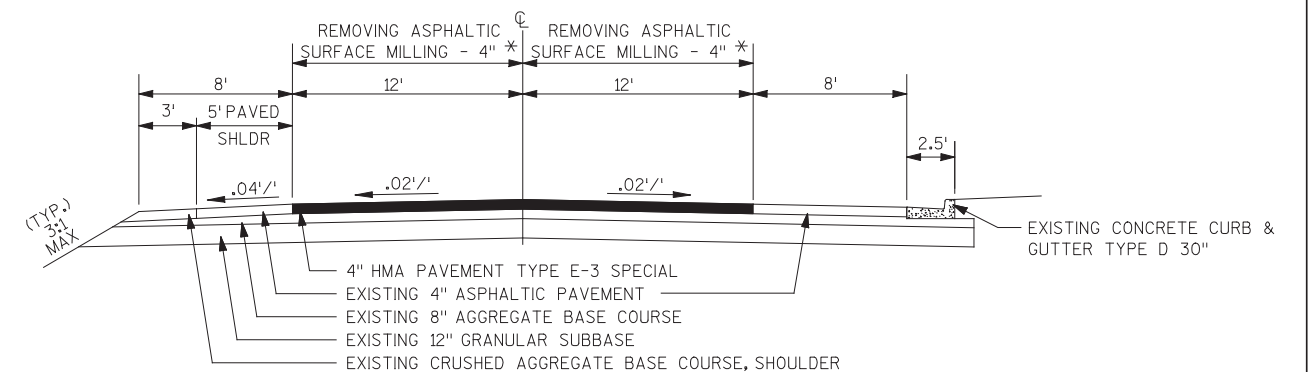
TYPICAL FINISHED RURAL SUPERELEVATED SECTION - BAY CITY

STA 597+44.00 TO STA 598+28.00



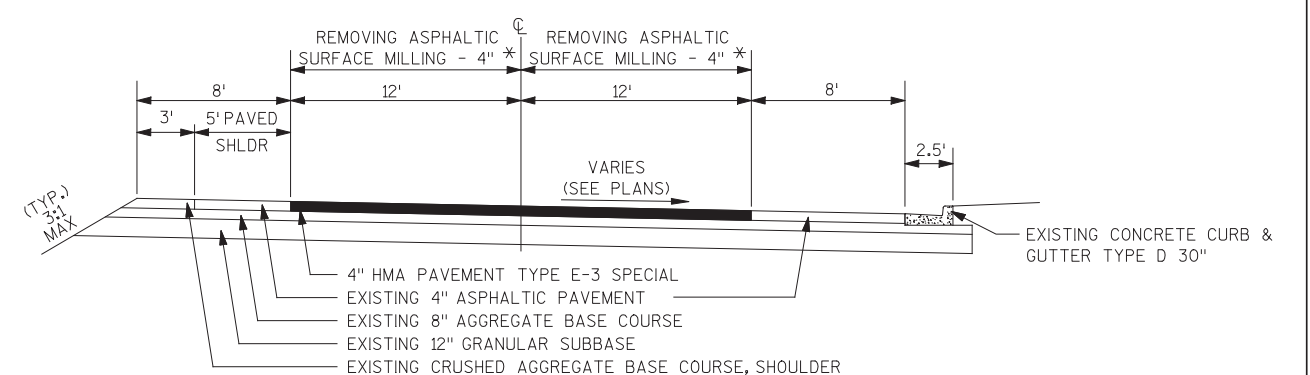
TYPICAL FINISHED RURAL TANGENT SECTION - BAY CITY

STA 598+28.00 TO STA 611+45.67



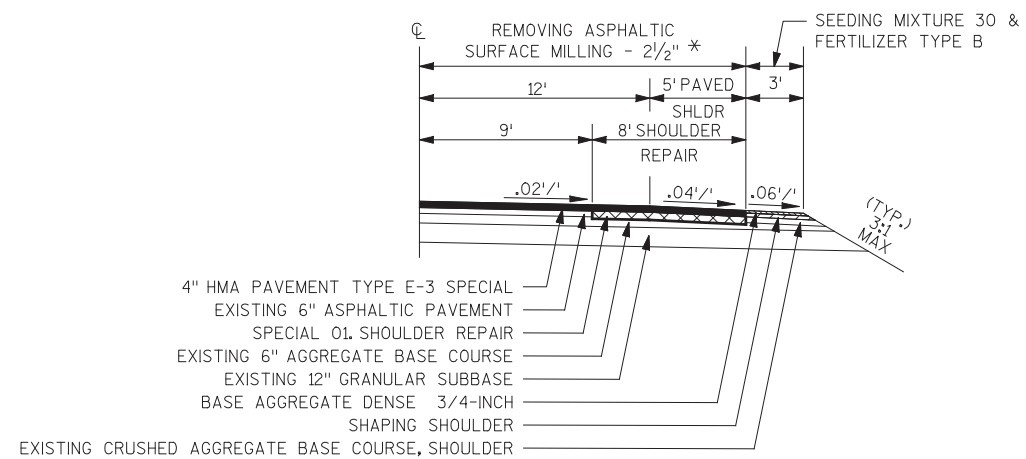
TYPICAL FINISHED SEMI-URBAN TANGENT SECTION - BAY CITY

STA 611+45.67 TO STA 631+57.45



TYPICAL FINISHED SEMI-URBAN SUPERELEVATED SECTION - BAY CITY

STA 631+57.45 TO STA 635+20.00

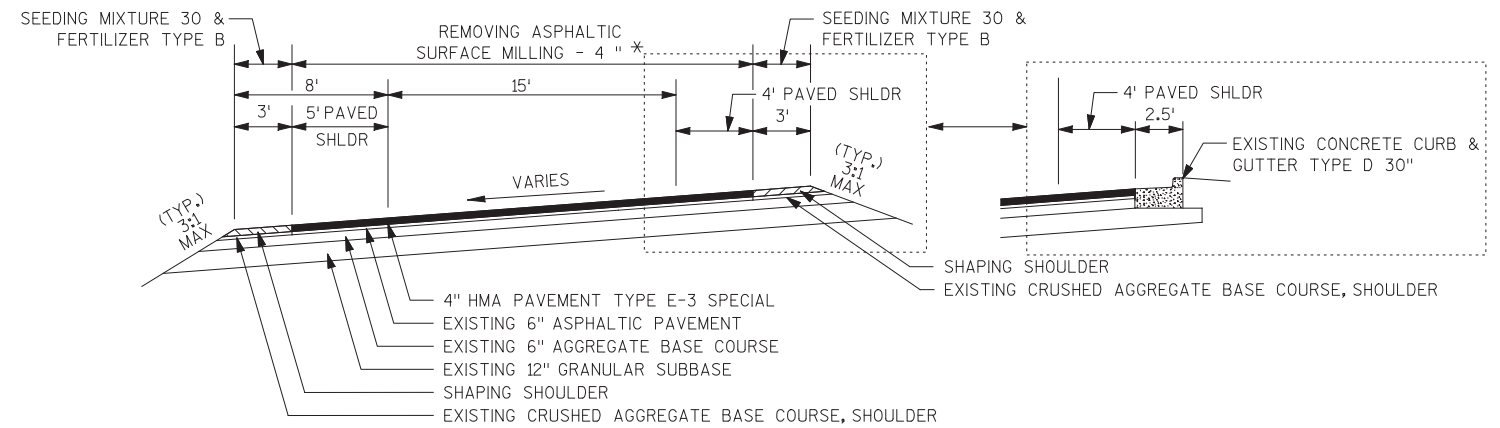


TYPICAL FINISHED SHOULDER REPAIR SECTIONS *

STA 99+73.0 TO STA 108+99.0, LT
STA 111+26.7 TO STA 116+00.0, LT
STA 209+76.9 TO STA 212+46.7, LT
STA 290+50.0 TO STA 296+50.0, LT
STA 295+50.0 TO STA 301+00.0, RT
STA 521+50.0 TO STA 525+00.0, LT

* AS DETERMINED BY THE ENGINEER

SPECIAL 01. SHOULDER REPAIR
- REMOVE ADDITIONAL 4" FROM TOP OF MILLED SURFACE
- REPLACE WITH 4" ASPHALTIC SURFACE



TYPICAL FINISHED RAMP SECTION

NB USH 63 TO SB STH 35 RAMP

* NOTE: SURFACE MILL SLOPE SHALL MATCH SLOPE OF PROPOSED SURFACE HMA.

PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

TYPICAL SECTIONS

SHEET

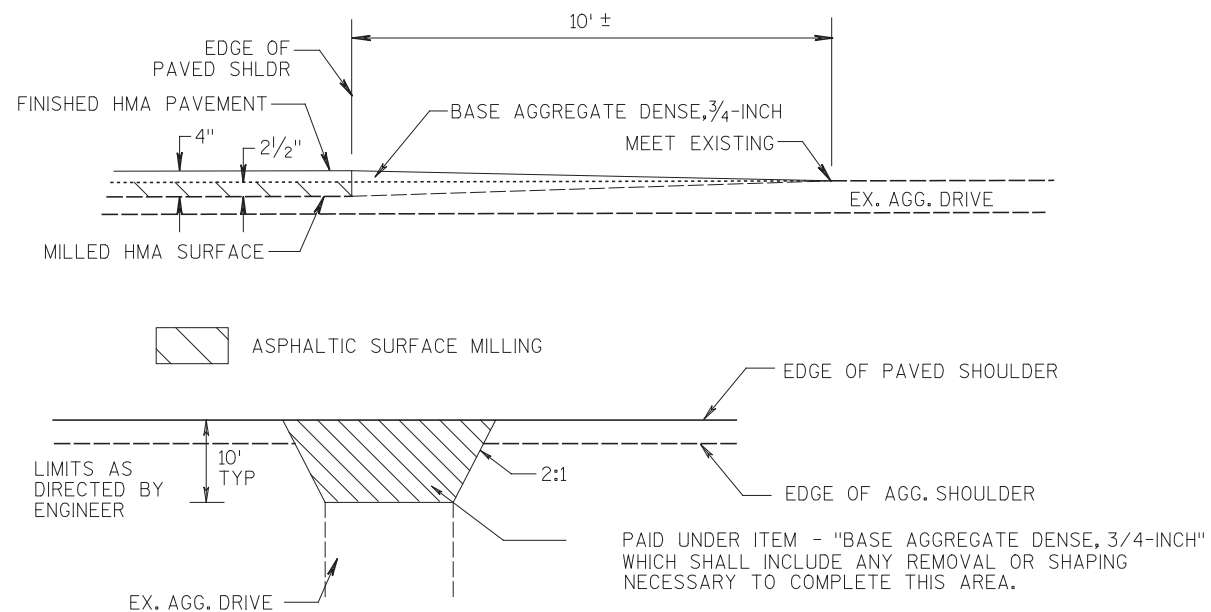
E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$ PLOT BY : \$\$...plotuser...\$\$ PLOT NAME :

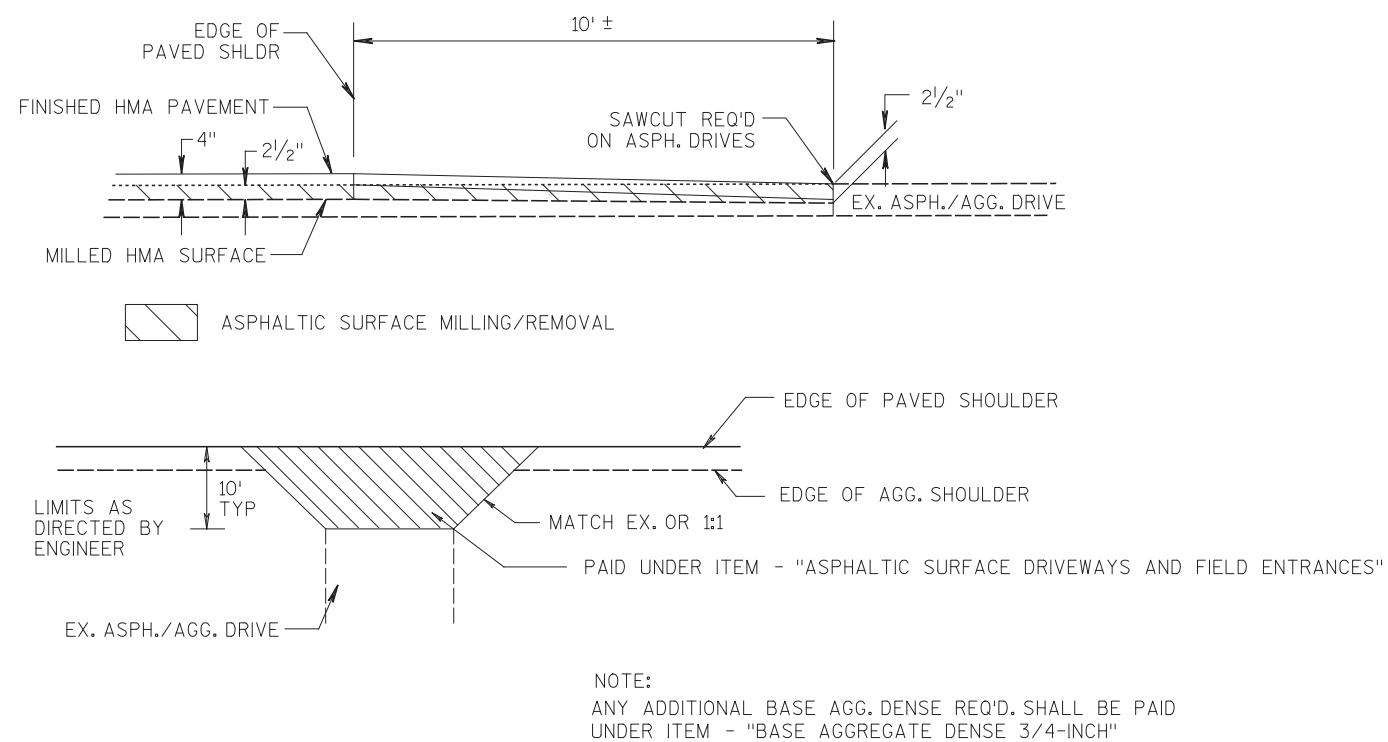
PLOT SCALE : \$\$.....plotscale.....\$\$ WISDOT/CAD 8

ET 42

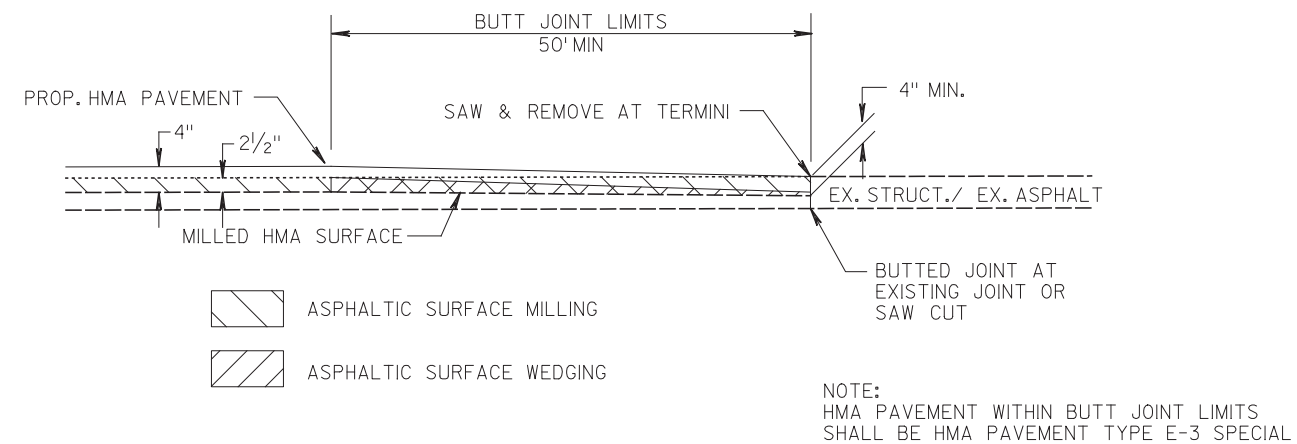


NOTE:
ANY ADDITIONAL BASE AGG. DENSE REQ'D. SHALL BE PAID UNDER ITEM - "BASE AGGREGATE DENSE 3/4-INCH"

RURAL DRIVEWAY DETAIL - AGGREGATE

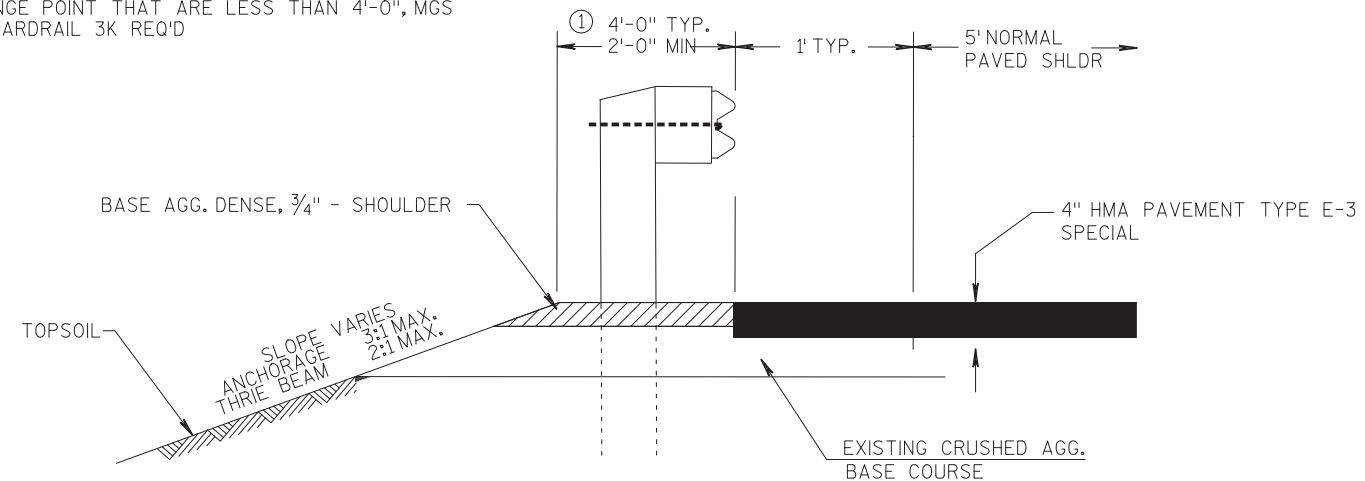


RURAL DRIVEWAY DETAIL - ASPHALT/ASPHALT PAD

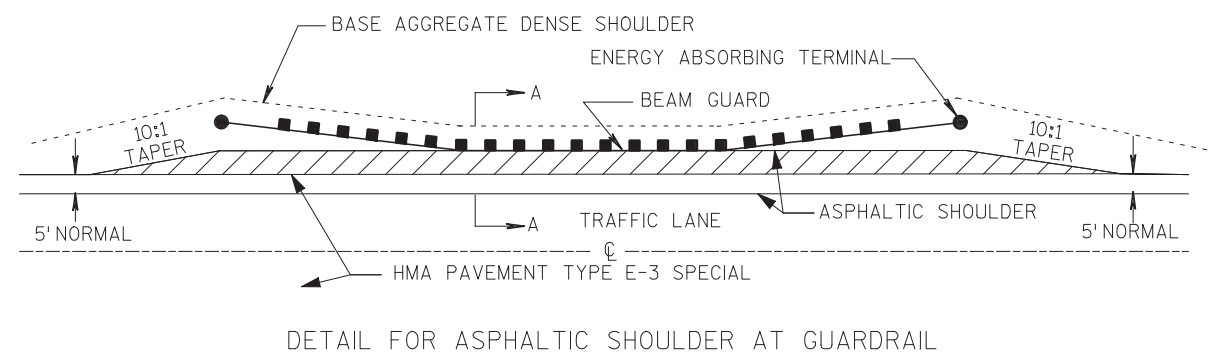


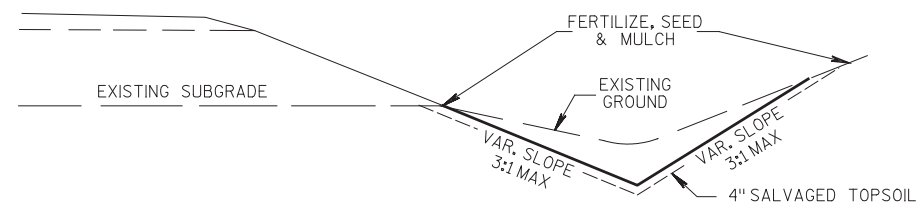
BUTT JOINT DETAIL AT STRUCTURE & PROJECT LIMITS

① FOR DISTANCES FROM FACE OF BEAMGUARD TO SHOULDER HINGE POINT THAT ARE LESS THAN 4'-0", MGS GUARDRAIL 3K REQ'D

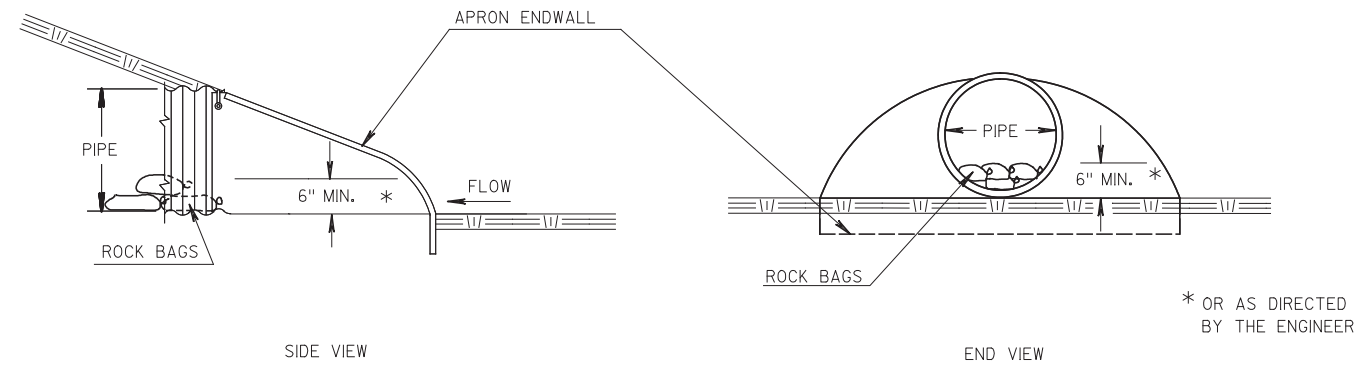


ASPHALTIC SHOULDER AT GUARDRAIL
SECTION A - A

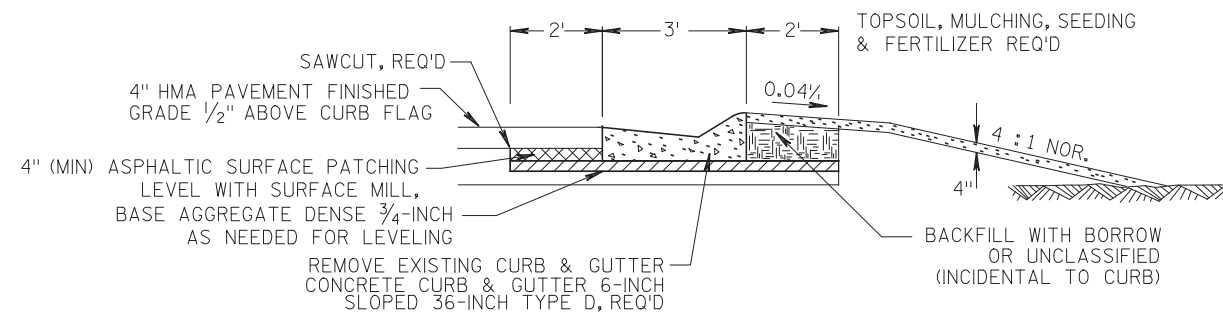




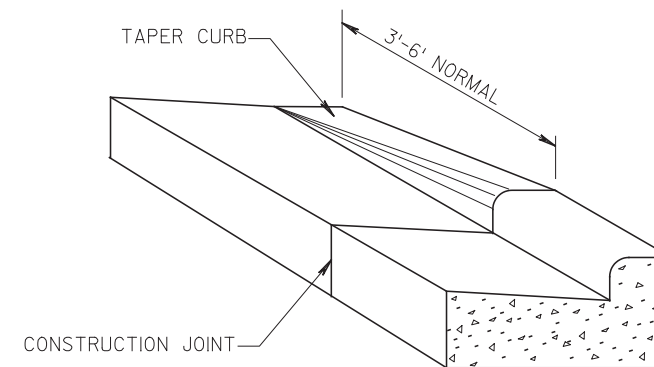
CLEANING DITCH DETAIL



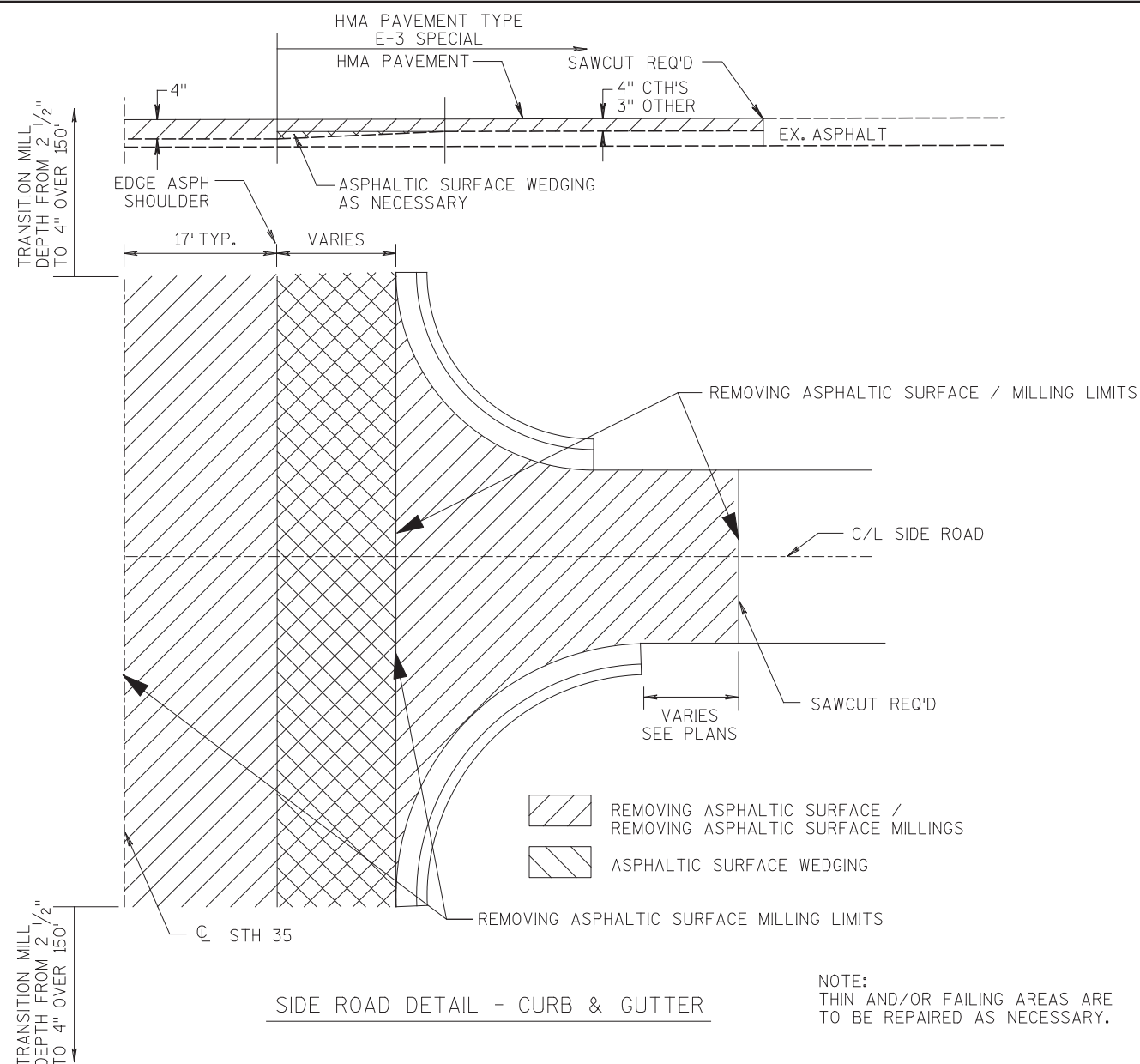
CULVERT PIPE CHECKS



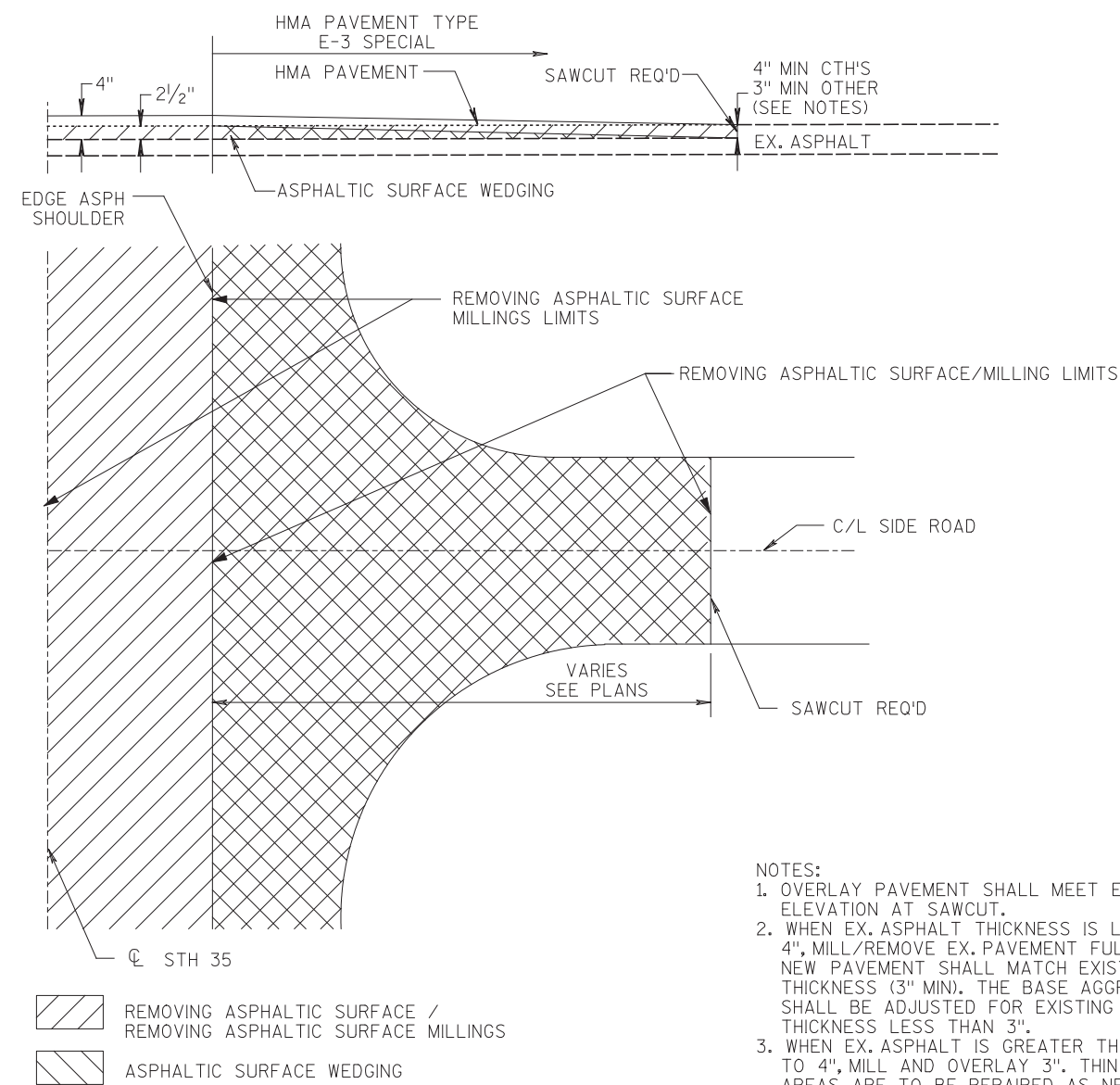
CURB & GUTTER REMOVAL AND REPLACE DETAIL



DETAIL OF CURB & GUTTER TERMINI



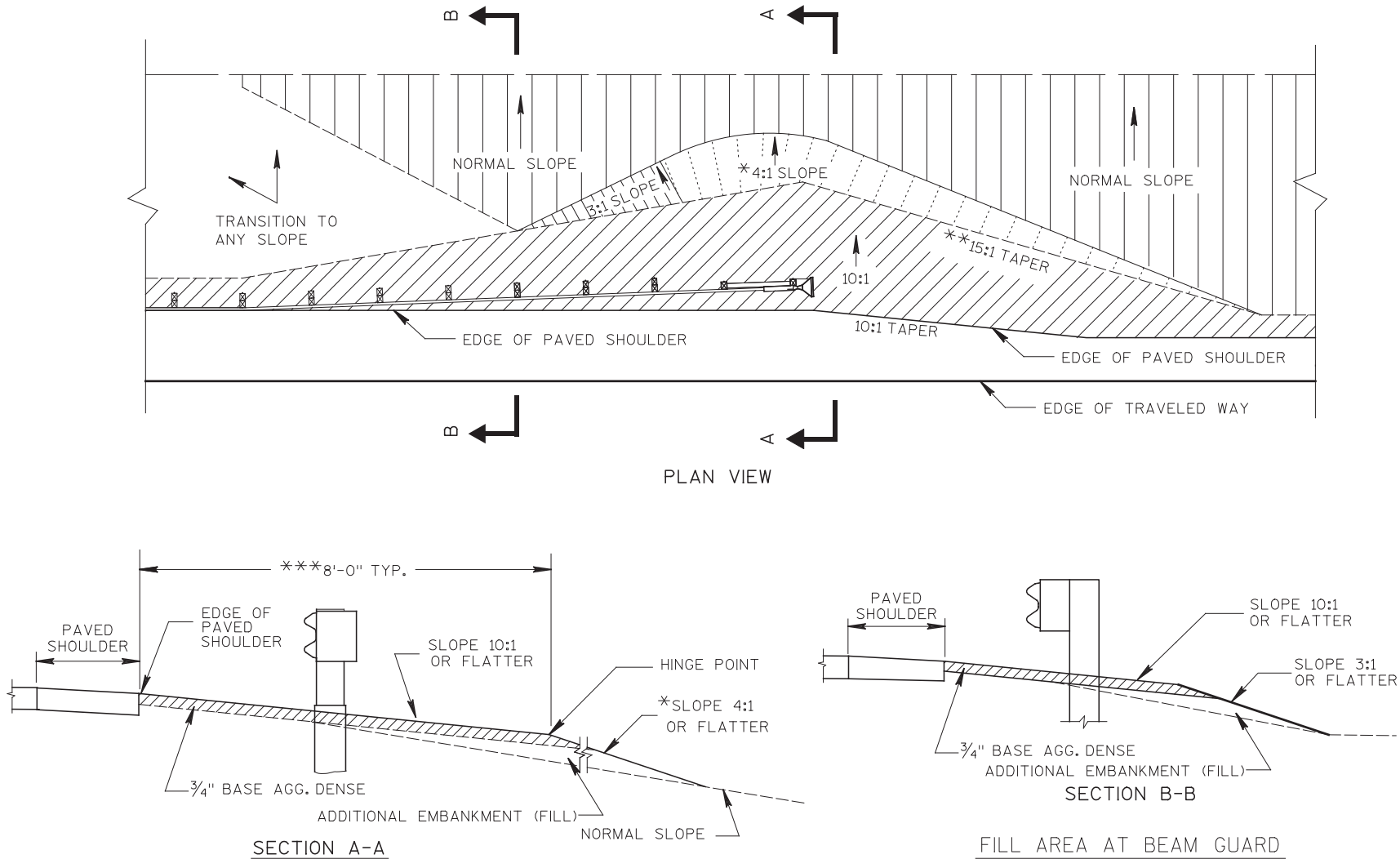
SIDE ROAD DETAIL - CURB & GUTTER



SIDE ROAD DETAIL - NO CURB & GUTTER

APPROXIMATE QUANTITIES FOR INFORMATIONAL PURPOSES ONLY

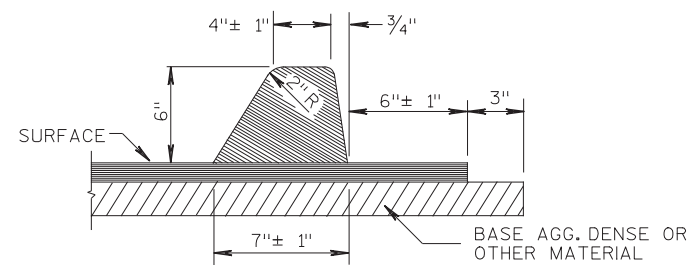
LOCATION POST #1 STATION	LOCATION	FILL CY	FILL (1.25) CY	COMMON EXCAVATION CY	TOPSOIL SY	SEED AREA SY	SEEDING LBS	TEMPORARY LBS	FERTILIZER CWT	EROSTON MAT SY	614.0010 EACH	REMARKS
99+50	21' RT	4.2	5	0.6	20	110	1.98	2.97	0.07	47	1	MODIFIED GRADING
106+05	56.5' LT	7.5	9	0	10	90	1.62	2.43	0.06	19	1	SHORT RADIUS TERMINAL
107+53	55.1' LT	6.1	8	0	20	50	0.9	1.35	0.03	26	1	SHORT RADIUS TERMINAL
115+92	22' RT	0.2	0	0	0	160	2.88	4.32	0.1	0	1	
119+95	22' LT	48.1	60	2.3	60	290	5.22	7.83	0.18	38	1	
121+83	20' LT	50	63	0.9	60	260	4.68	7.02	0.16	147	1	
157+25	20' RT	20.7	26	2.1	10	220	3.96	5.94	0.14	93	1	
161+90	20' RT	24	30	0.5	50	150	2.7	4.05	0.09	81	1	
162+26	20' LT	16	20	0.5	0	30	0.54	0.81	0.02	25	1	COMMERCIAL ACCESS
162+62	20' LT	16	20	0.5	0	30	0.54	0.81	0.02	25	1	COMMERCIAL ACCESS
183+14	18' LT	0	0	0	40	40	0.72	1.08	0.03	0	1	DRIVEWAY OPENING W/ WALL
183+28	16' LT	0	0	0	20	20	0.36	0.54	0.01	0	1	TYPE 2 - DRIVEWAY OPENING W/WALL
184+19	18' LT	0	0	0	20	20	0.36	0.54	0.01	0	1	CHESTNUT - WALL BEHIND POSTS
204+94	18' RT	0	0	5	25	25	0.45	0.68	0.02	0	1	PROTECTION FROM FALLING ROCKS
208+50	18' RT	0	0	5	25	25	0.45	0.68	0.02	0	1	PROTECTION FROM FALLING ROCKS
208+59	19' LT	3.5	4	4.7	10	130	2.34	3.51	0.08	25	1	MODIFIED GRADING
10+94 G	15' LT	4	5	0	0	10	0.18	0.27	0.01	10	1	SHORT RADIUS TERMINAL (113TH AVE)
225+20	35.6' RT	4	5	0	10	10	0.18	0.27	0.01	10	1	SHORT RADIUS TERMINAL (DRIVEWAY)
225+79	20' LT	14	18	2.7	30	240	4.32	6.48	0.15	119	1	
245+68	20' RT	50.5	63	3.9	170	370	6.66	9.99	0.23	236	1	
245+68	19' LT	46.3	58	0.5	170	300	5.4	8.1	0.19	240	1	MODIFIED GRADING
251+35	20' RT	26.6	33	2.8	50	260	4.68	7.02	0.16	142	1	
251+35	19' LT	22.7	28	2.7	100	220	3.96	5.94	0.14	158	1	MODIFIED GRADING
266+94	20' LT	53.5	67	1.4	100	310	5.58	8.37	0.2	186	1	
284+00	20' RT	4.6	6	3.9	10	150	2.7	4.05	0.09	38	1	
285+73	45' RT	4	5	0	10	10	0.18	0.27	0.01	10	1	SHORT RADIUS TERMINAL (DRIVEWAY)
297+04	20' RT	24.3	30	1.5	10	210	3.78	5.67	0.13	93	1	
298+26	20' LT	10.4	13	1	40	100	1.8	2.7	0.06	54	1	
298+74	20' LT	7.3	9	0.3	20	90	1.62	2.43	0.06	40	1	
299+48	20' RT	33.8	42	1.2	30	230	4.14	6.21	0.14	103	1	
311+55	19' LT	6.9	9	1.6	30	130	2.34	3.51	0.08	59	1	MODIFIED GRADING
316+31	20' LT	22.2	28	1.2	60	270	4.86	7.29	0.17	147	1	
333+13	19' RT	45.9	57	0.5	90	210	3.78	5.67	0.13	141	1	MODIFIED GRADING
10+75 J	15' RT	4	5	0	0	10	0.18	0.27	0.01	10	1	SHORT RADIUS TERMINAL (113TH AVE)
351+18	20' LT	4.2	5	4.3	0	180	3.24	4.86	0.11	56	1	
357+99	20' LT	21.2	27	1.1	0	200	3.6	5.4	0.13	71	1	
361+67	20' RT	21.5	27	2.4	40	280	5.04	7.56	0.18	156	1	MODIFIED GRADING
366+59	19' LT	44.7	56	0.2	120	240	4.32	6.48	0.15	172	1	
366+92	19' RT	17.6	22	1.6	90	220	3.96	5.94	0.14	154	1	MODIFIED GRADING
371+39	20' LT	19.6	25	5.2	50	250	4.5	6.75	0.16	125	1	
379+90	19' LT	20	25	5	40	150	2.7	4.05	0.09	25	1	MODIFIED GRADING - DRIVEWAY
380+15	19' LT	20	25	5	40	150	2.7	4.05	0.09	25	1	MODIFIED GRADING - DRIVEWAY
392+45	20' LT	38.6	48	2.5	90	300	5.4	8.1	0.19	178	1	
396+62	20' LT	9.5	12	2.1	20	200	3.6	5.4	0.13	82	1	
401+75	18' RT	68.8	86	9.1	160	270	4.86	7.29	0.17	211	1	MODIFIED GRADING
404+35	19' LT	29.8	37	2.4	80	230	4.14	6.21	0.14	180	1	
10+69 K	17.3' RT	4	5	0	0	10	0.18	0.27	0.01	10	1	SHORT RADIUS TERMINAL
417+45	20' RT	30.5	38	1.2	80	280	5.04	7.56	0.18	156	1	
428+07	20' RT	5.1	6	5.5	10	160	2.88	4.32	0.1	41	1	
432+55	20' LT	19.3	24	6.6	50	210	3.78	5.67	0.13	88	1	
433+50	20' RT	19	24	4.6	70	180	3.24	4.86	0.11	105	1	
438+11	20' LT	46	58	2.7	200	400	7.2	10.8	0.25	278	1	
441+19	20' RT	3.4	4	5.8	10	180	3.24	4.86	0.11	57	1	
482+17	20' RT	28.9	36	2.3	20	200	3.6	5.4	0.13	81	1	
483+08	20' LT	45.7	57	1.7	70	280	5.04	7.56	0.18	158	1	
485+85	20' RT	20.5	26	3.3	40	220	3.96	5.94	0.14	97	1	
496+15	20' LT	50	63	0.5	60	150	2.7	4.05	0.09	25	1	SIDE ROAD OPENING (560TH ST)
497+18	20' LT	50	63	0.5	60	150	2.7	4.05	0.09	25	1	SIDE ROAD OPENING (560TH ST)
498+59	20' RT	2	3	1.8	10	110	1.98	2.97	0.07	48	1	
500+42	20' LT	3.1	4	4.8	10	100	1.8	2.7	0.06	27	1	
526+12	20' LT	21.6	27	3.3	10	230	4.14	6.21	0.14	113	1	
529+78	19' RT	44.8	56	0.5	60	150	2.7	4.05	0.09	97	1	MODIFIED GRADING
535+50	20' RT	15.2	19	5	60	120	2.16	3.24	0.08	75	1	
545+06	20' RT	35.7	45	0.6	80	180	3.24	4.86	0.11	112	1	
547+36	20' LT	20.1	25	2.8	50	250	4.5	6.75	0.16	128	1	
549+93	20' LT	19.6	25	1.7	50	250	4.5	6.75	0.16	133	1	
560+85	20' RT	36.4	46	3.2	50	250	4.5	6.75	0.16	127	1	
564+10	20' LT	42.9	54	2.1	40	250	4.5	6.75	0.16	129	1	
571+35	20' RT	78.7	98	1	130	320	5.76	8.64	0.2	202	1	
591+84	22' LT	139.2	174	1	220	400	7.2	10.8	0.25	292	1	MODIFIED GRADING
591+90	24' RT	100	125	3.6	90	420	7.56	11.34	0.26	228	1	
595+45	24' LT	81.6	102	2.5	100	350	6.3	9.45	0.22	185	1	
595+54	24' RT	85.9	107	4.1	40	370	6.66	9.99	0.23	198	1	
634+88	24' RT	0	0	4.3	50	70	1.26	1.89	0.04	60	1	
635+41	20' LT	23	29	3.7	50	230	4.14	6.21	0.14	100	1	
638+58	19' LT	7.6	10	1.7	30	160	2.88	4.32	0.1	63	1	MODIFIED GRADING
639+22	20' RT	0.5	1	6.5	0	150	2.7	4.05	0.09	19	1	
818+61	23' LT	3.5	4	1.9	10	90	1.62	2.43	0.06	27	1	MODIFIED GRADING
TOTALS		N/A	2,479	179	3,840	14,320	257.76	385.65	8.99	7,241	78	



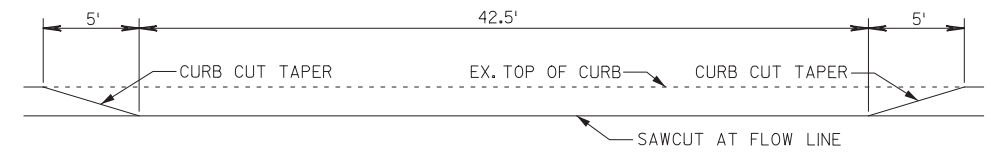
NOTES

- * LOCATIONS NOTED AS "MODIFIED GRADING" MAY HAVE A 3:1 SLOPE BEYOND THE SHOULDER HINGE POINT.
- ** TAPER MAY BE REDUCED TO 10:1 AS APPROVED BY THE ENGINEER.
- *** LOCATIONS NOTED AS "MODIFIED E.A.T. AND GRADING" MAY HAVE THE E.A.T. OFFSET REDUCED FROM 2' TO 1' AND THE SHOULDER HINGE POINT AT THE E.A.T. REDUCED FROM 8' TO 7' WITH 3:1 GRADING BEYOND THE SHOULDER HINGE POINT.
- E.A.T.'S LOCATED BEHIND CURB AND GUTTER SHALL REQUIRE A PROFILE CURB CUT.
- ALL AREAS BEYOND THE PAVED SHOULDER SHALL BE SEEDED AND FERTILIZED.
- PROVIDING EMBANKMENT, EXCAVATION, BORROW, TOPSOIL, MULCH, FERTILIZER AND SEEDING INCLUDED IN ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.
- MULCH TO BE PLACED AS DIRECTED BY THE ENGINEER.
- EROSION MAT CLASS I TYPE A NOT INCLUDED UNDER ITEM BARRIER SYSTEM GRADING SHAPING FINISHING AND WILL BE PAID FOR SEPARATELY.
- SEED AND FERTILIZER QUANTITIES CALCULATED AT TYPE 30 AND TYPE B RATES RESPECTIVELY.

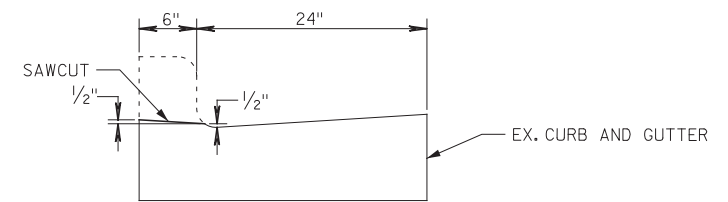
BARRIER SYSTEM GRADING SHAPING FINISHING



ASPHALTIC CURB DETAIL



PROFILE

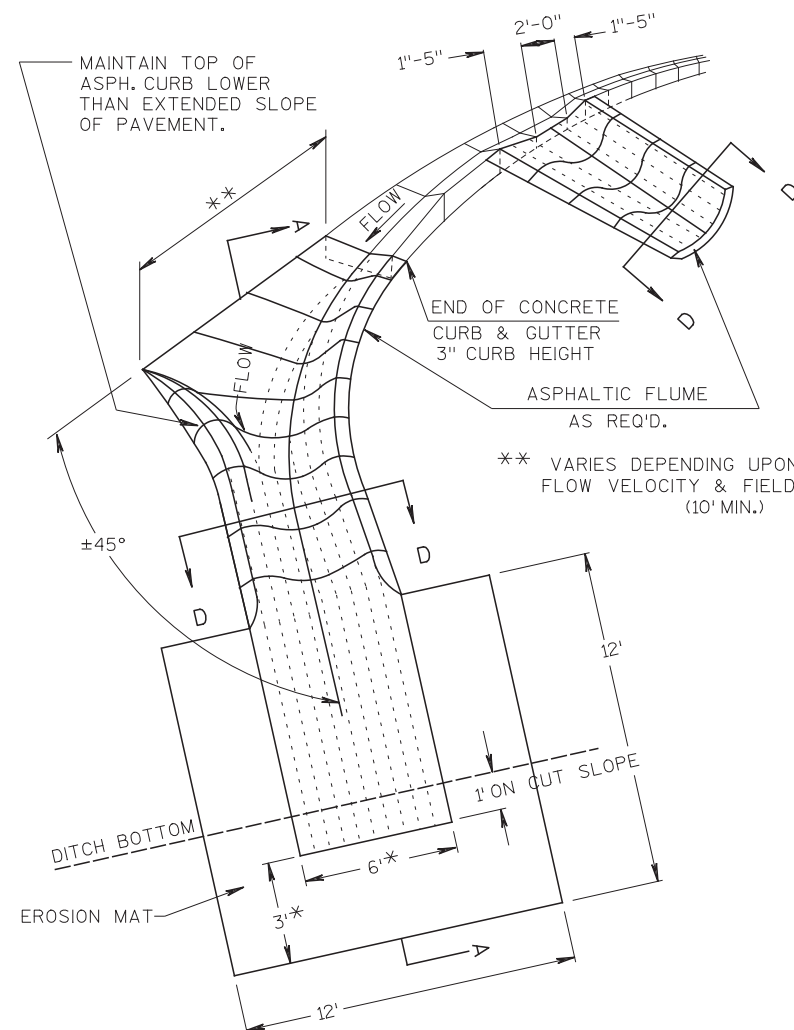


CROSS-SECTION

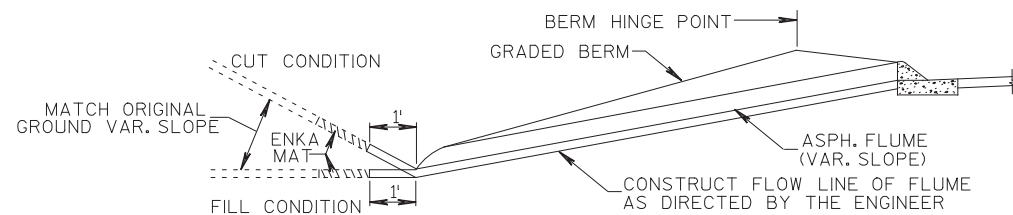
PROFILE CURB CUT

STA 204+63.7 TO STA 205+06.2, RT
STA 208+37.8 TO STA 208+80.3, RT
STA 634+57.5 TO STA 635+00.0, RT

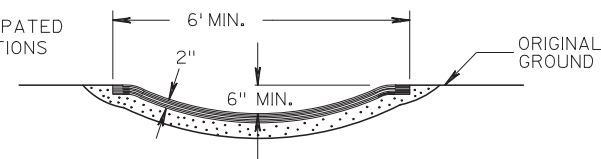
NOTE:
PAYMENT FOR REMOVAL AND RESTORATION
BEHIND EXISTING CURB TO BE PAID UNDER
BARRIER SYSTEM GRADING SHAPING FINISHING
ITEM.



** VARIES DEPENDING UPON ANTICIPATED
FLOW VELOCITY & FIELD CONDITIONS
(10' MIN.)

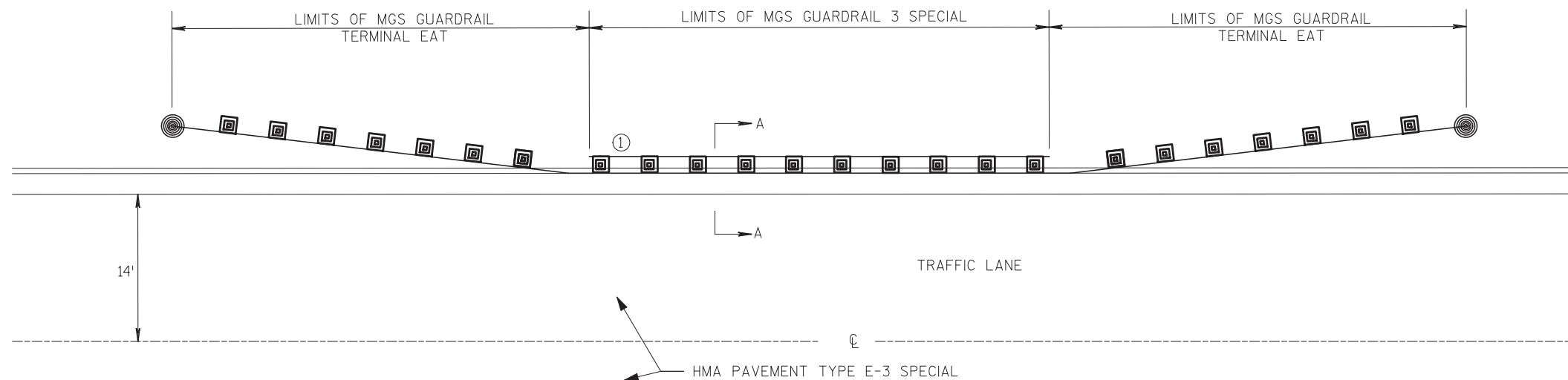


SECTION A-A

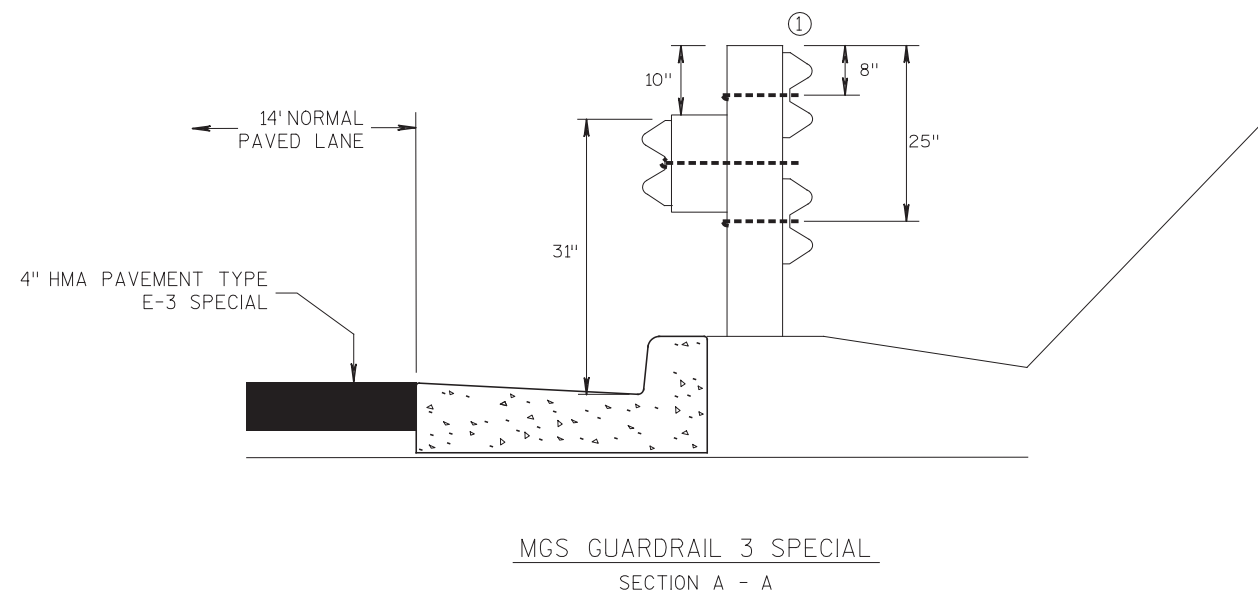


SECTION D-D

**ASPHALTIC FLUME DETAIL
AT RURAL INTERSECTIONS**



CONSTRUCTION DETAIL FOR MGS GUARDRAIL 3 SPECIAL

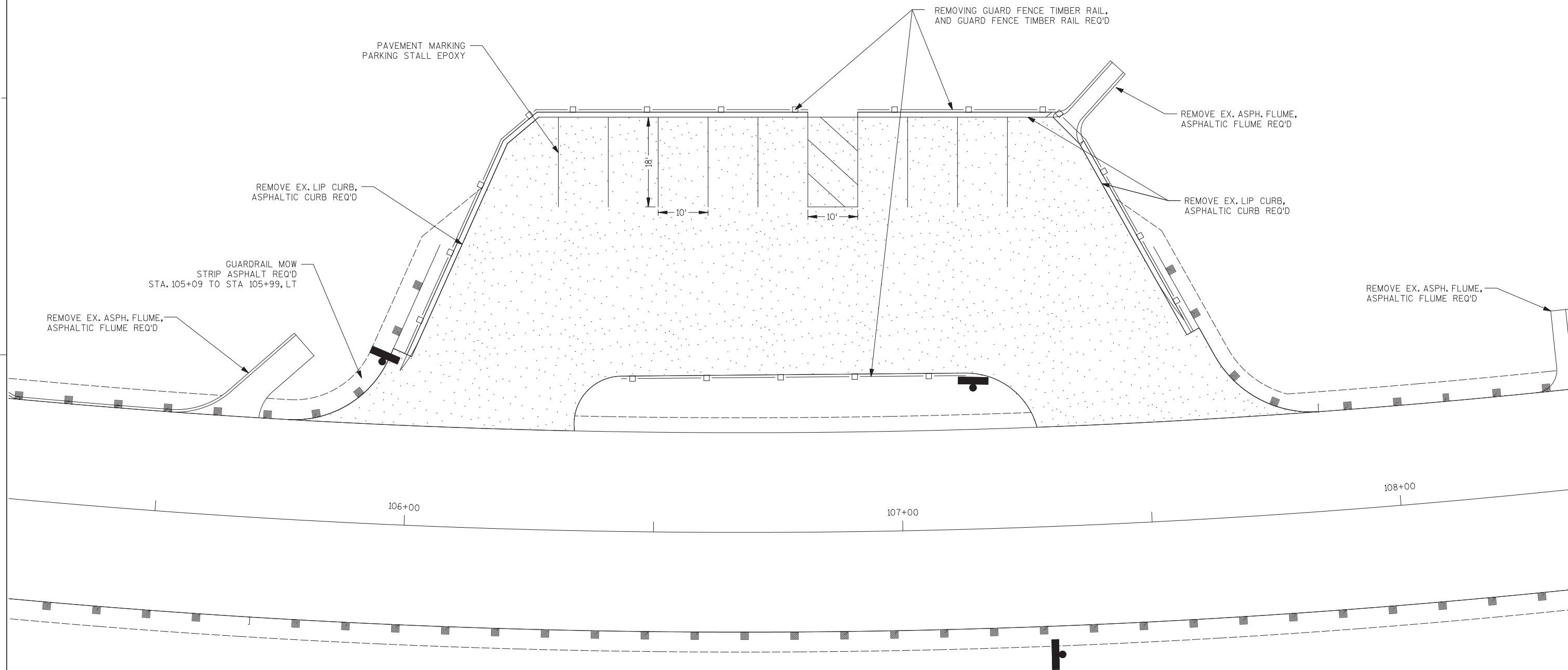
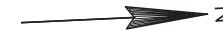


NOTE:

① MGS GUARDRAIL 3 SPECIAL INCLUDES MGS RAIL MOUNTED ON EACH SIDE OF GUARDRAIL POST.



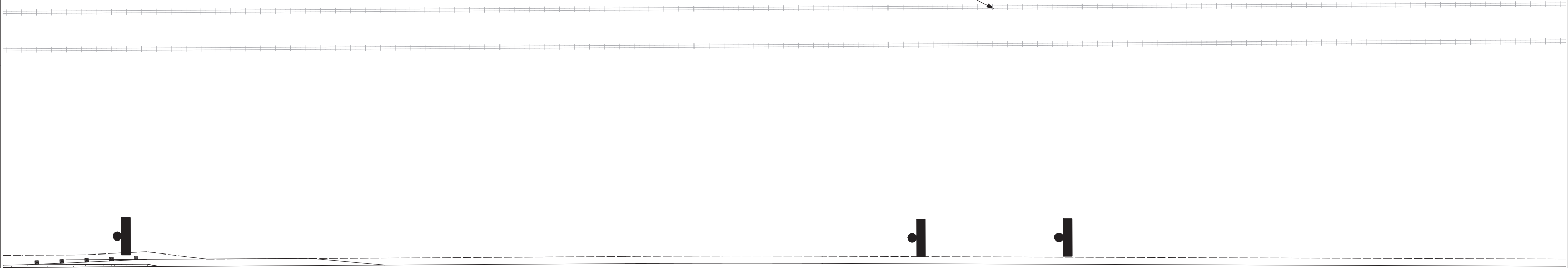
2" HMA PAVEMENT TYPE E-3 SPECIAL



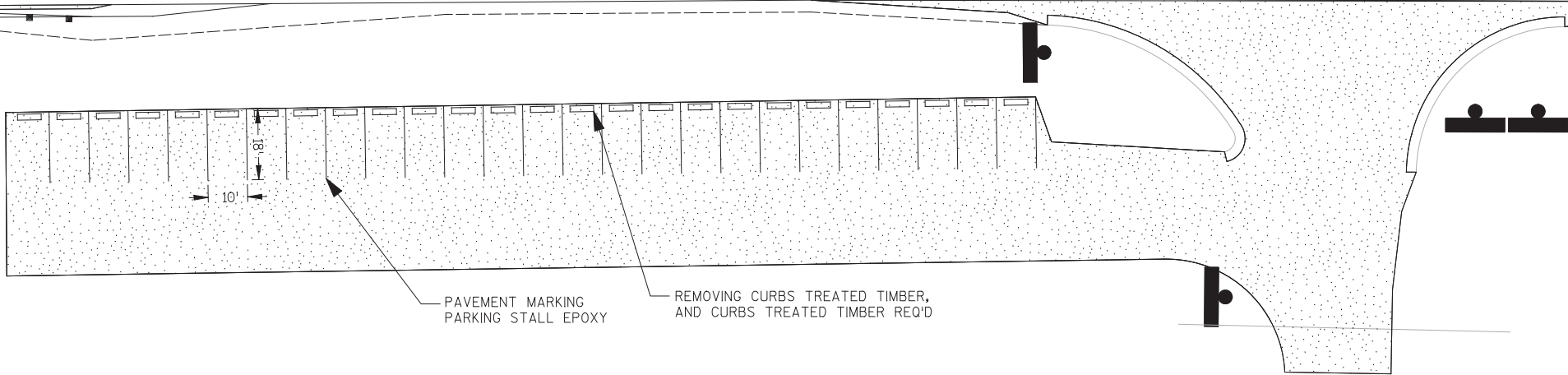
2" HMA PAVEMENT TYPE E-3 SPECIAL



BURLINGTON NORTHERN
SANTA FE RAILROAD



251+00 252+00 253+00 254+00 255+00 256+00



PAVEMENT MARKING
PARKING STALL EPOXY

REMOVING CURBS TREATED TIMBER,
AND CURBS TREATED TIMBER REQ'D

OH

SCALE, FEET 0 20 40



2" HMA PAVEMENT TYPE E-3 SPECIAL



BURLINGTON NORTHERN
SANTA FE RAILROAD

EX. WALL

EX. CURB & GUTTER

EX. WALL

352+00

353+00

354+00

355+00

356+00

357+00

SCALE, FEET

PROJECT NO:1721-01-61

HWY: STH 35

COUNTY: PIERCE

PLAN DETAILS - WAYSIDE #3

SHEET

E

FILE NAME : \$\$.....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

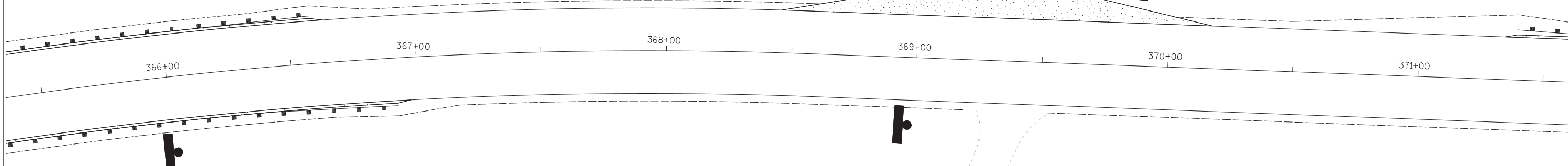
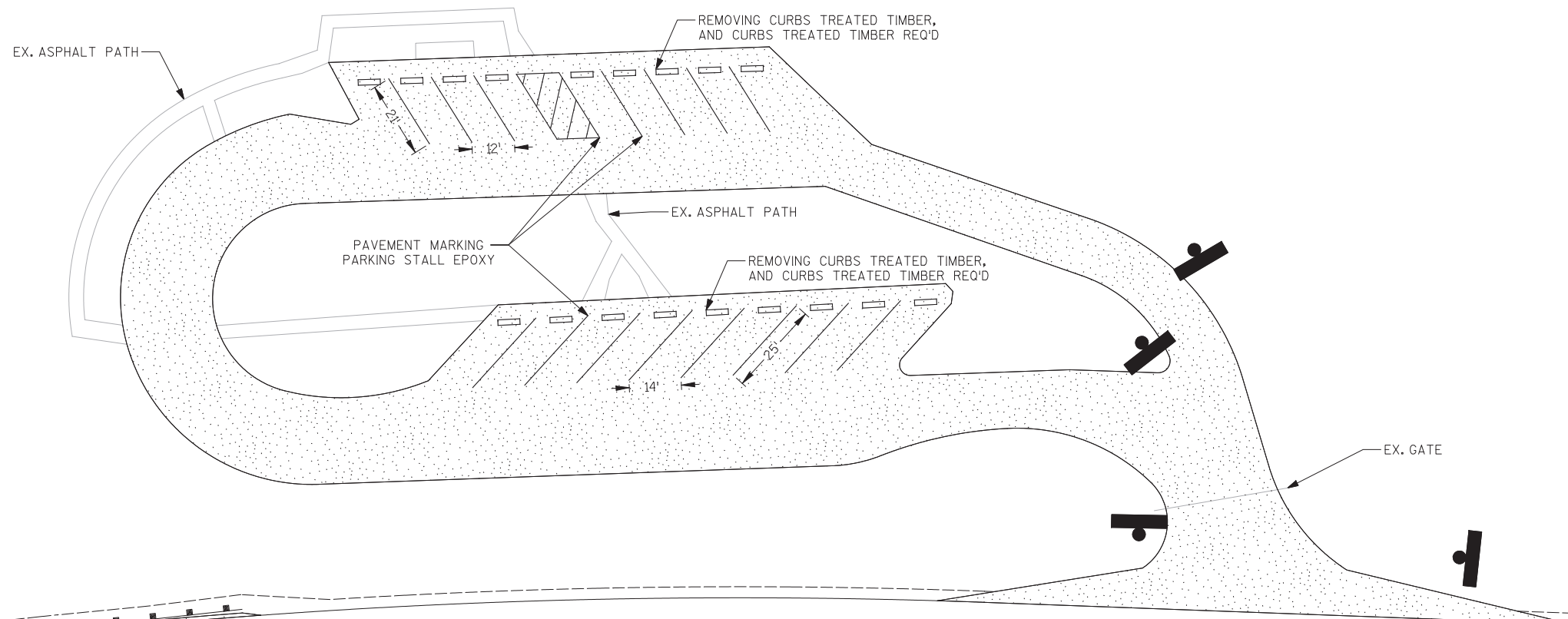
PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 17

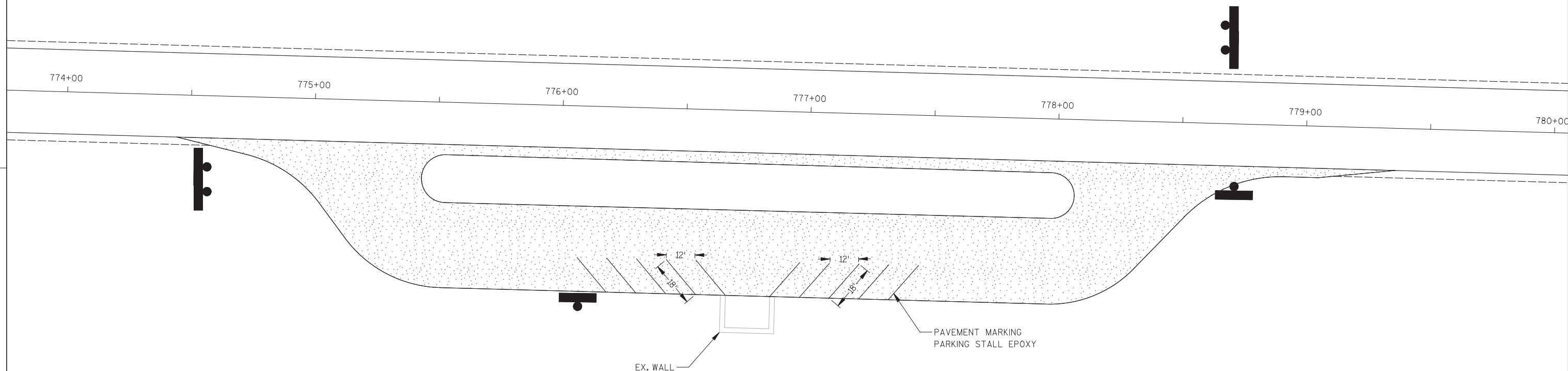
ET 42

2" HMA PAVEMENT TYPE E-3 SPECIAL



SCALE, FEET

2" HMA PAVEMENT TYPE E-3 SPECIAL

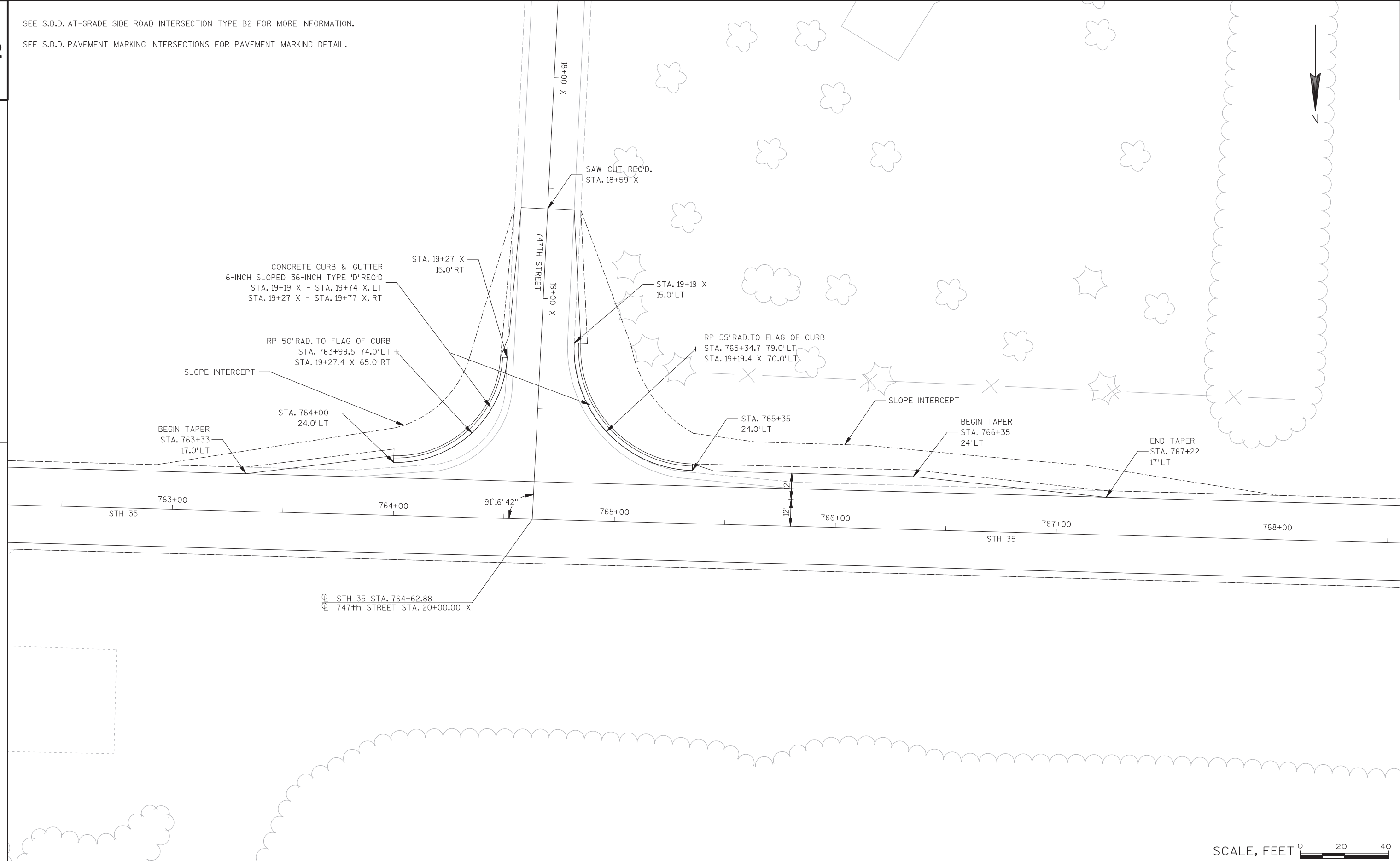


SCALE, FEET

2

SEE S.D.D. PAVEMENT MARKING INTERSECTIONS FOR PAVEMENT MARKING DETAIL.

2



PROJECT NO:1721-01-61

HWY:STH 35

COUNTY: PIERCE

PLAN DETAILS - 747TH STREET RIGHT TURN LANE

SHEET

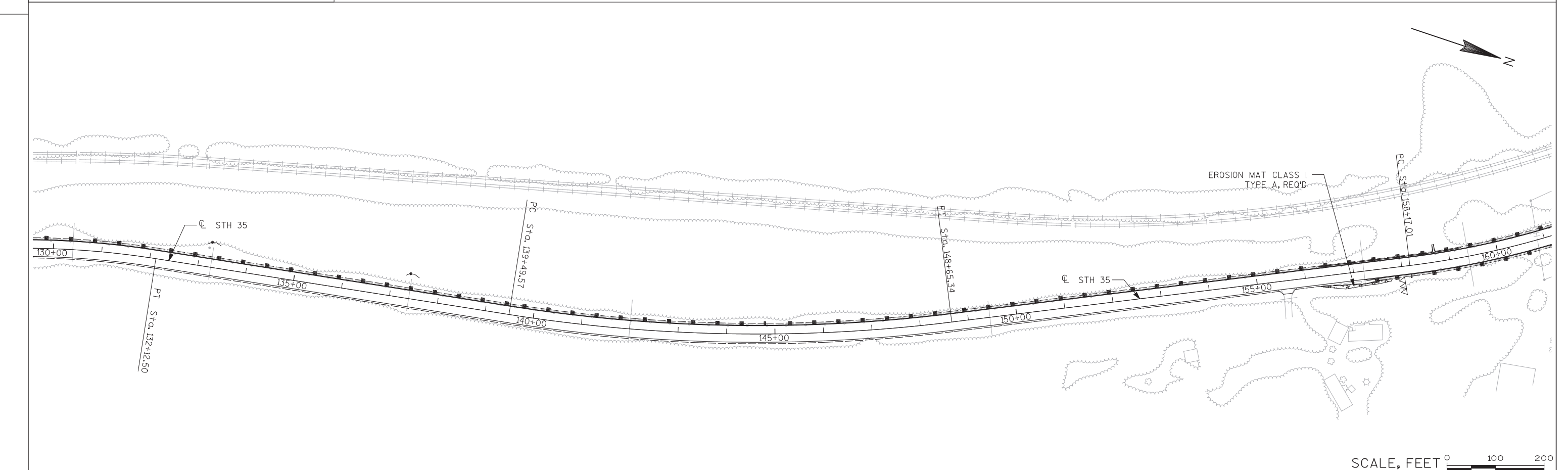
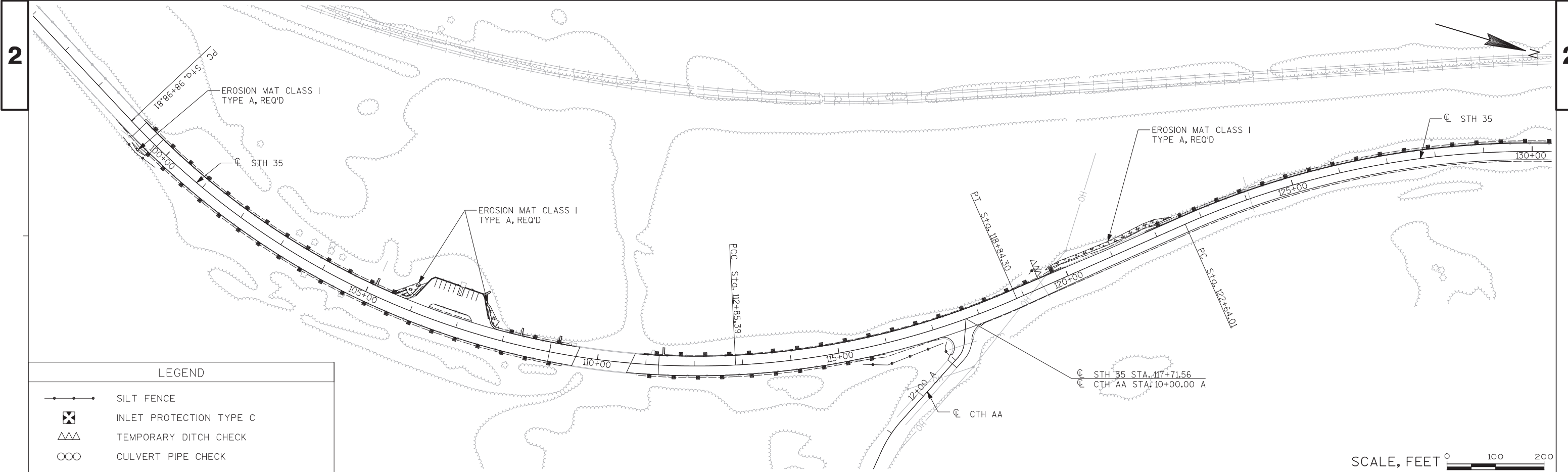
E	
---	--

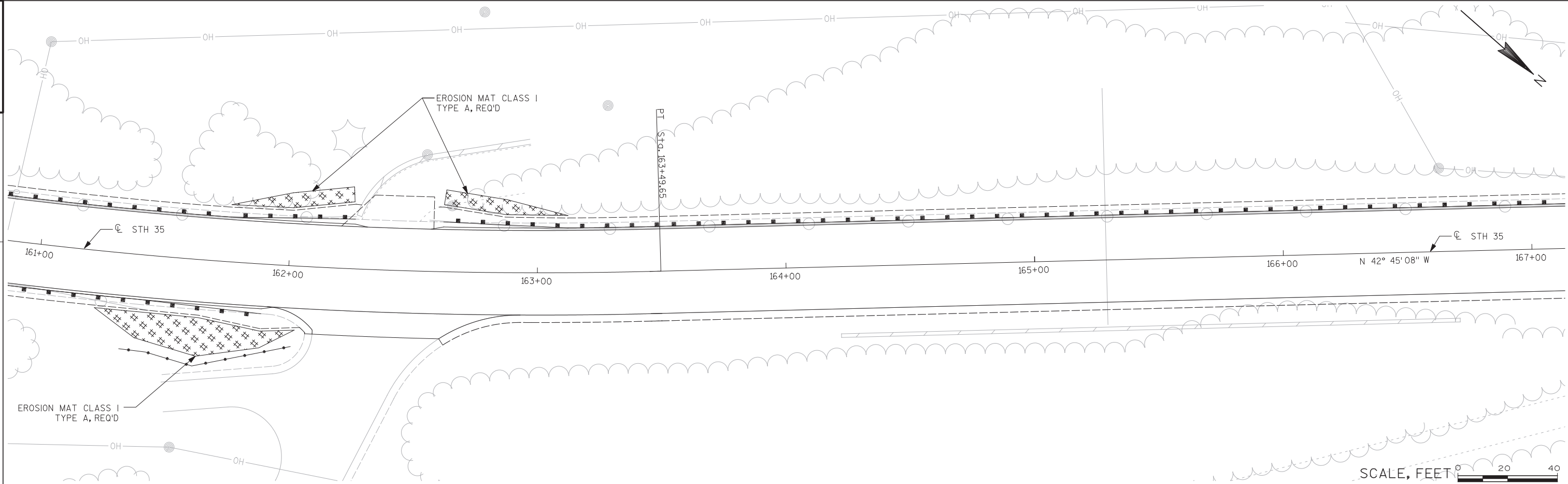
FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$ PLOT BY : \$\$...plotuser...\$\$ PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$ WISDOT/CAD 20

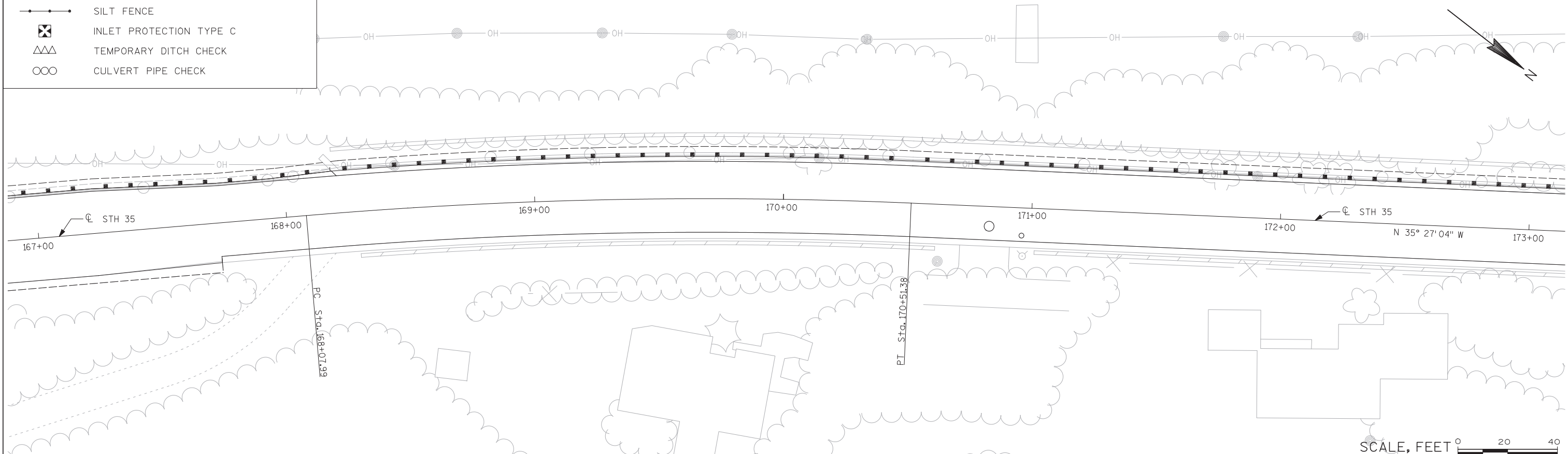
:ET 42

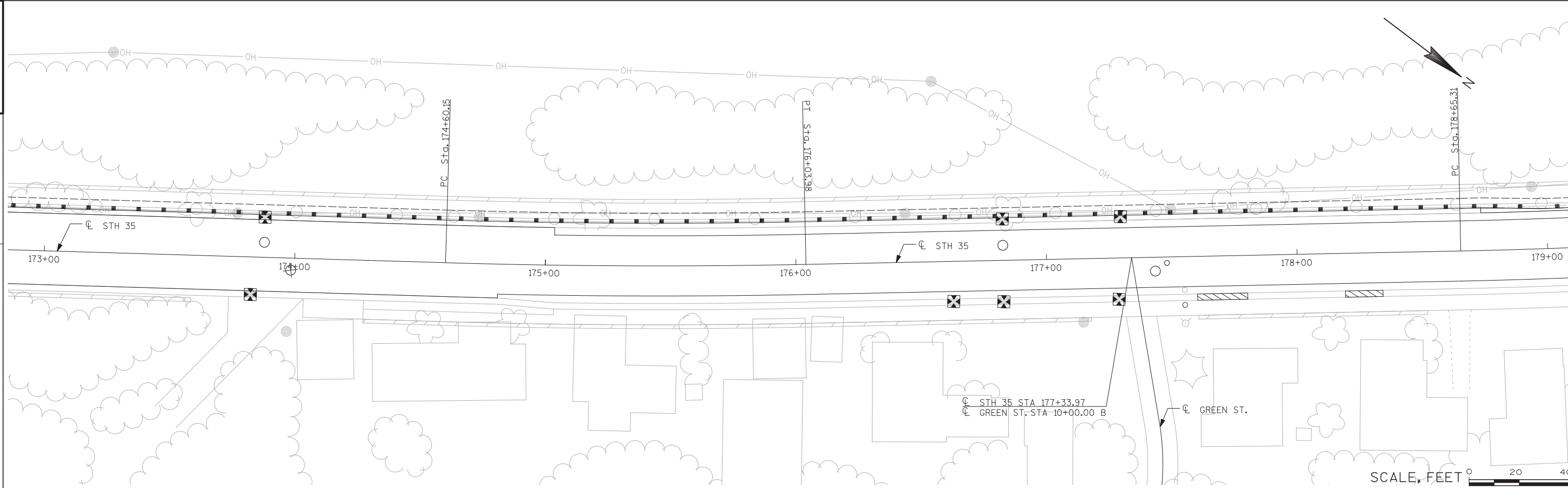




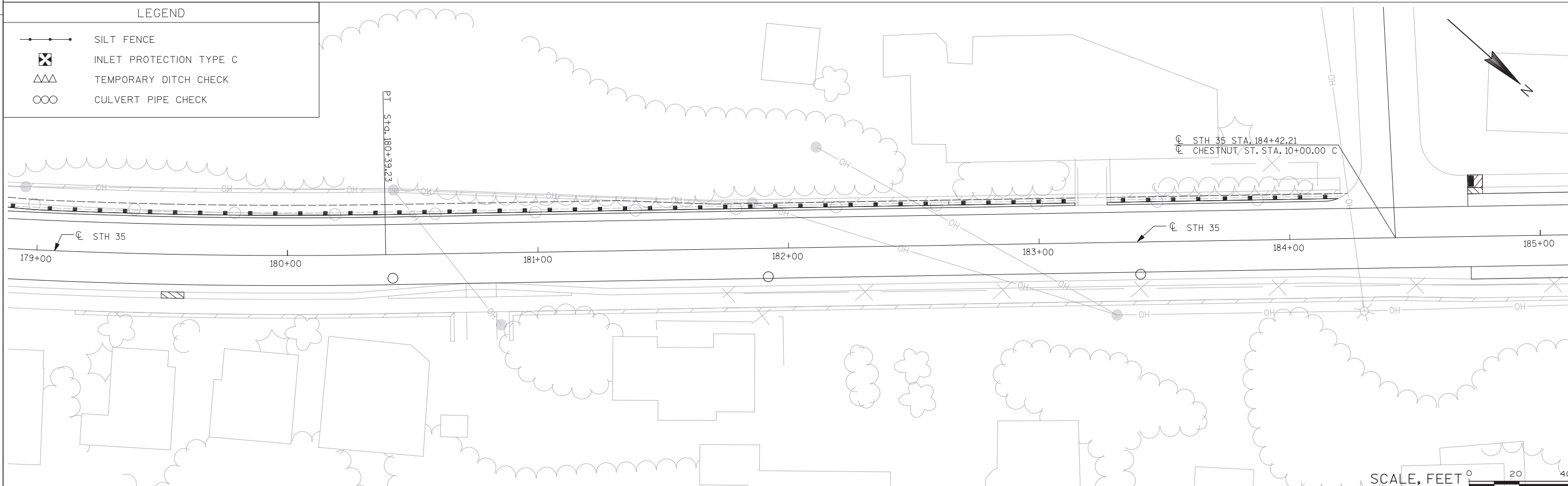
LEGEND

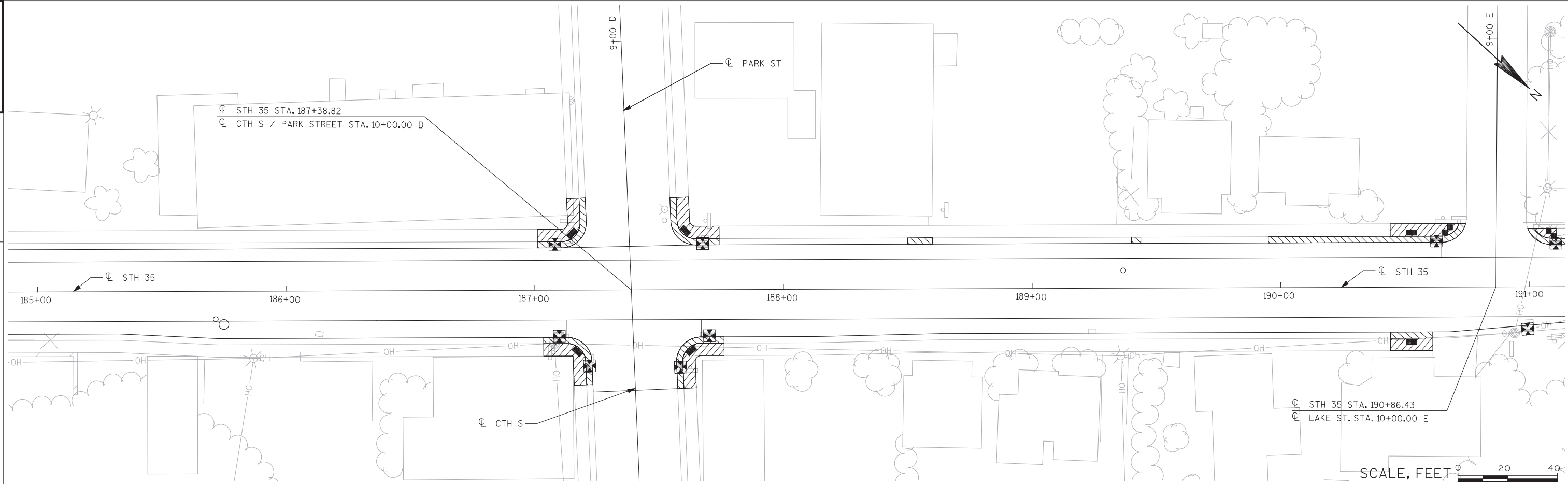
- SILT FENCE
- ⊠ INLET PROTECTION TYPE C
- △△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK





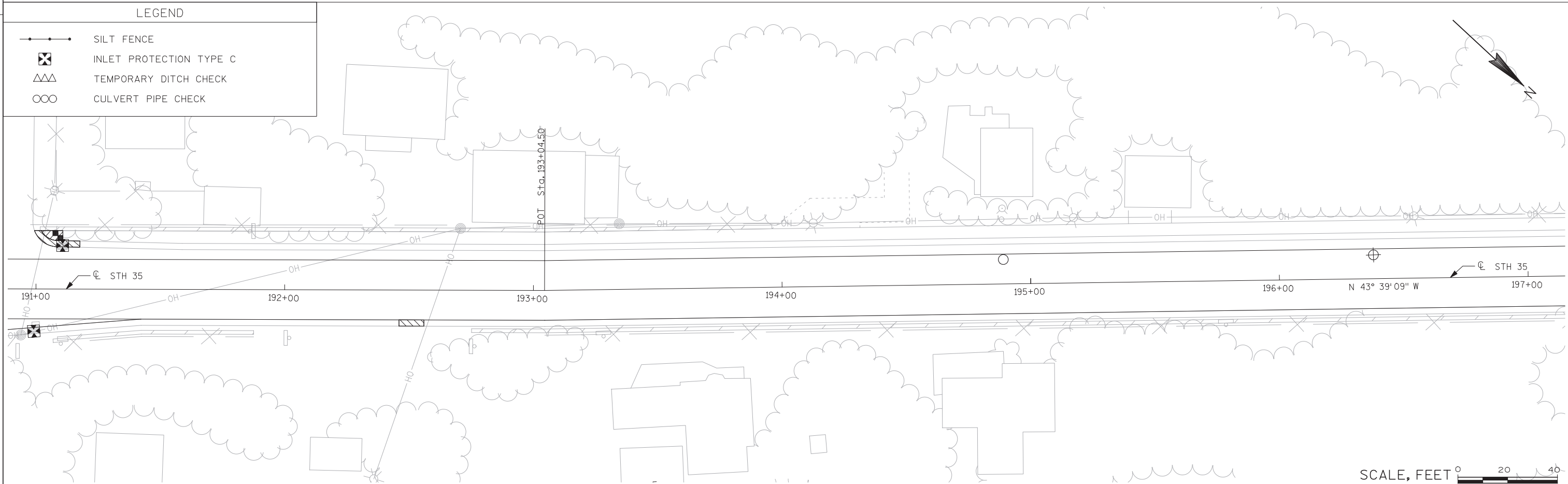
LEGEND	
	SILT FENCE
	INLET PROTECTION TYPE C
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK

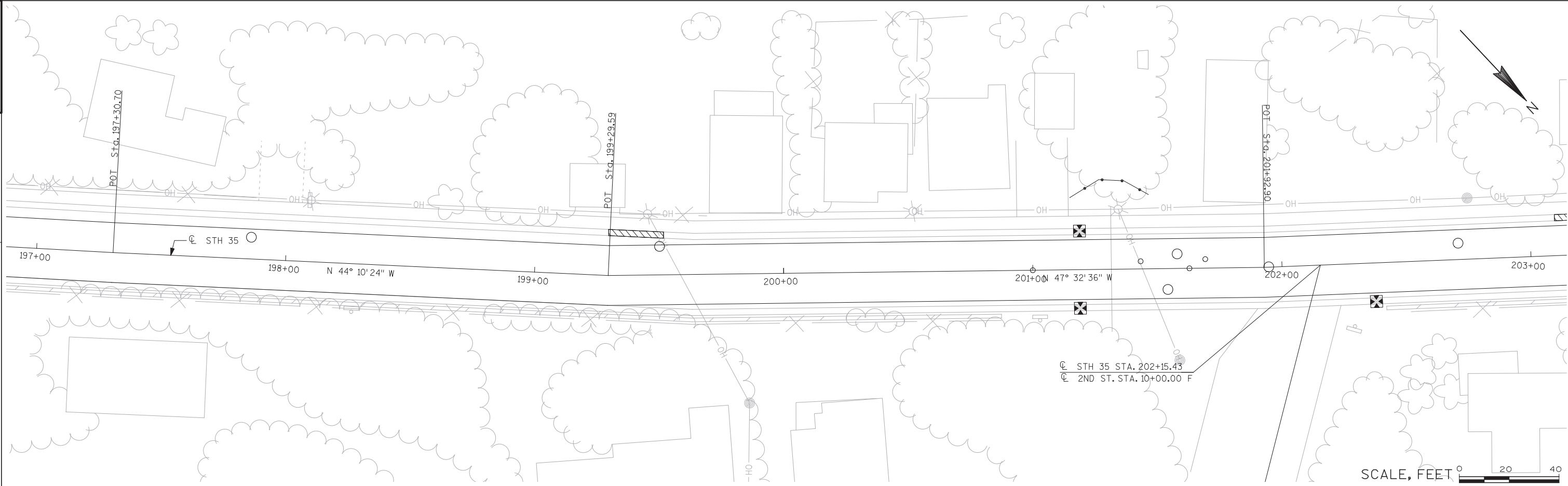




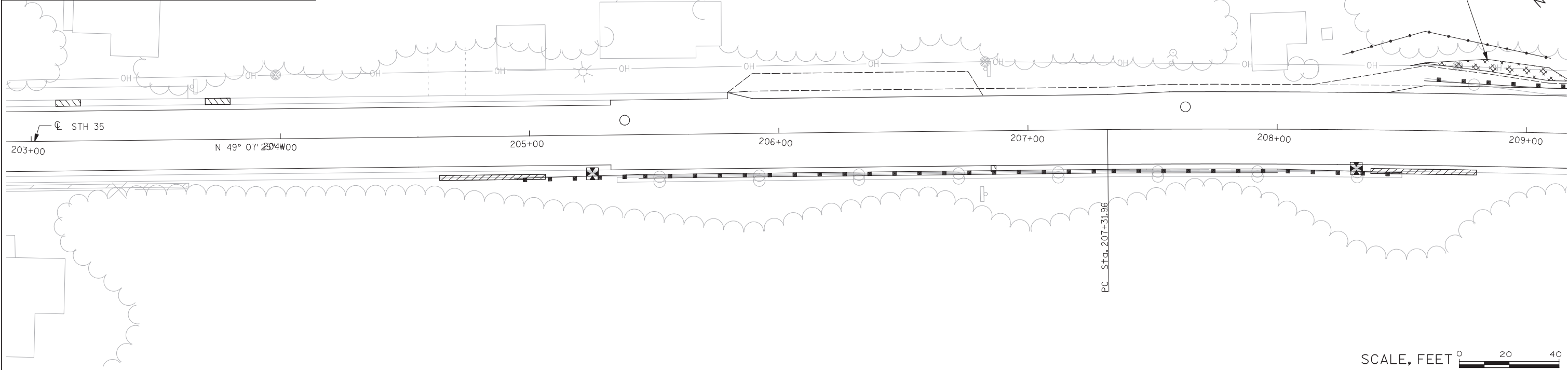
LEGEND

- SILT FENCE
- ⊗ INLET PROTECTION TYPE C
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK



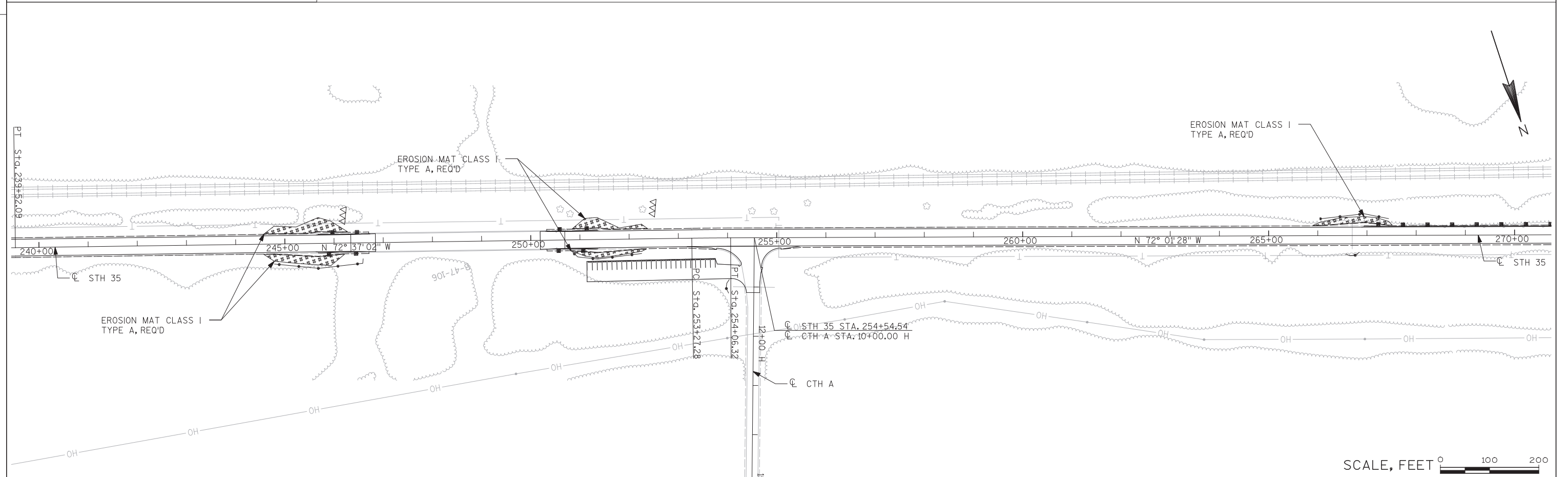
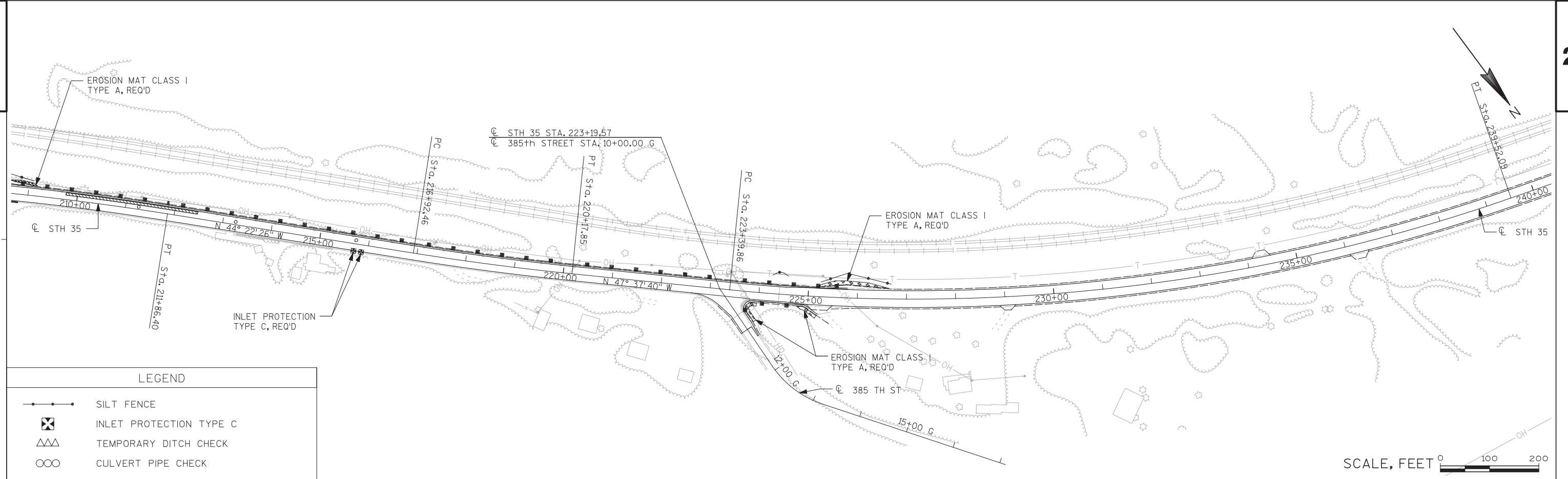


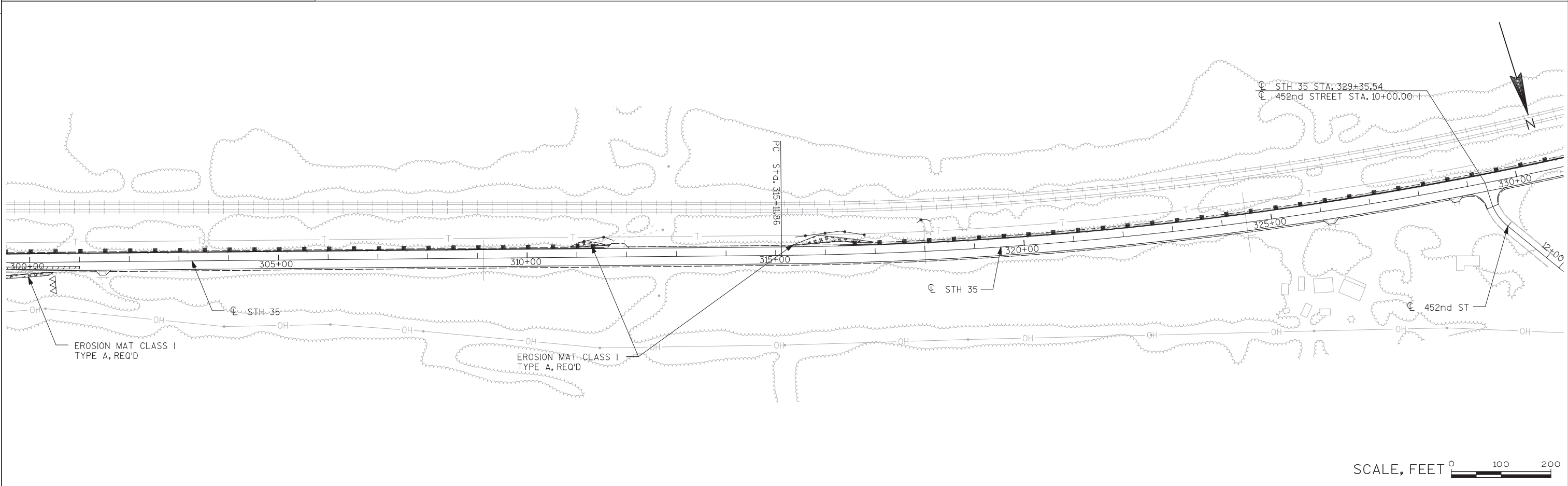
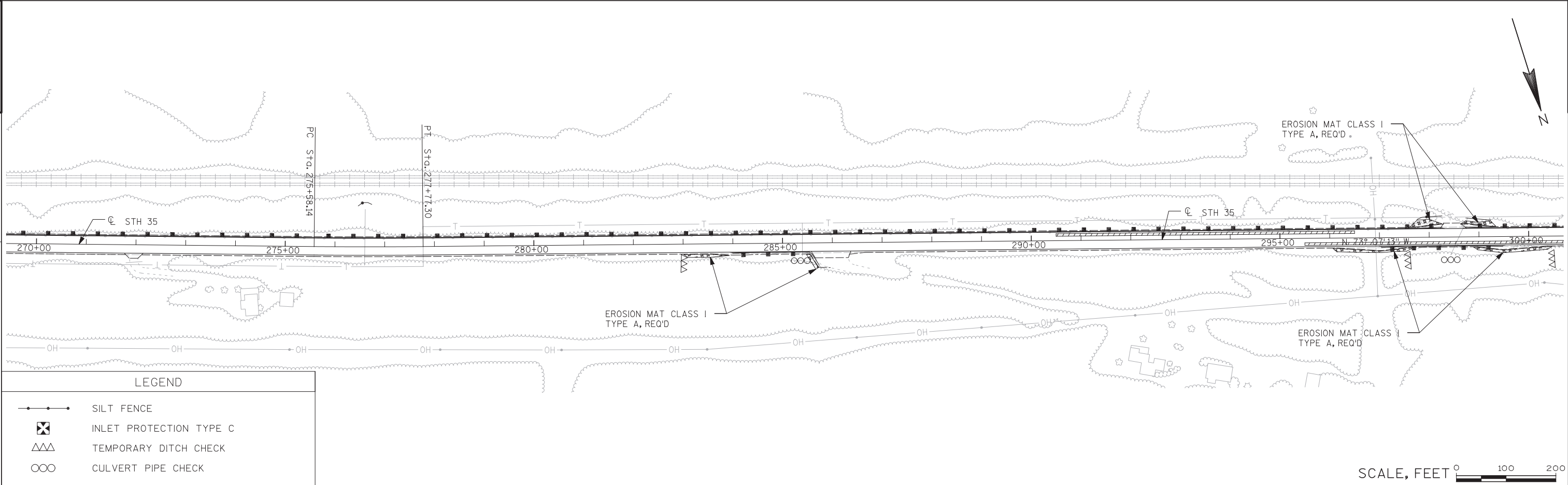
LEGEND	
	SILT FENCE
	INLET PROTECTION TYPE C
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK

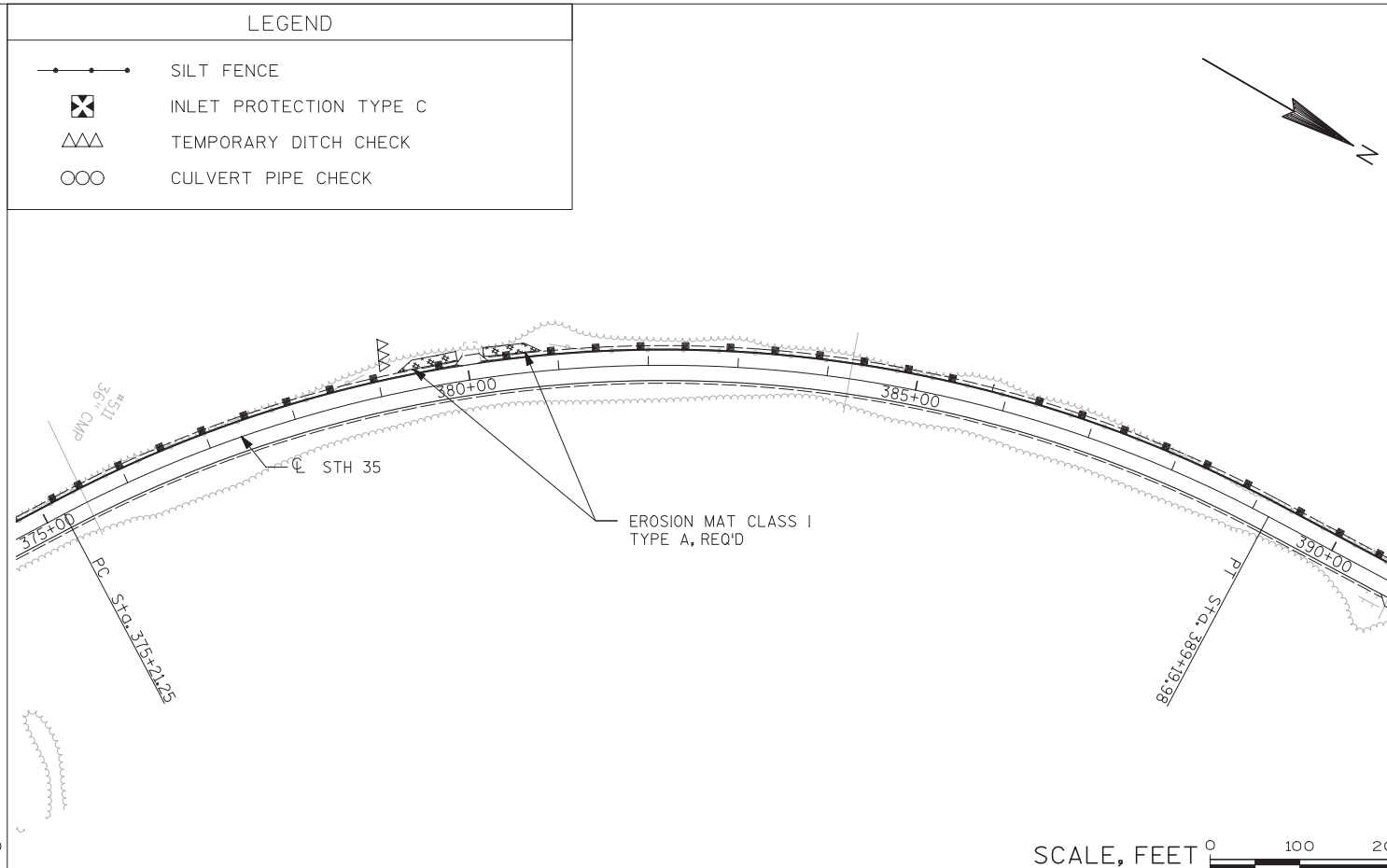
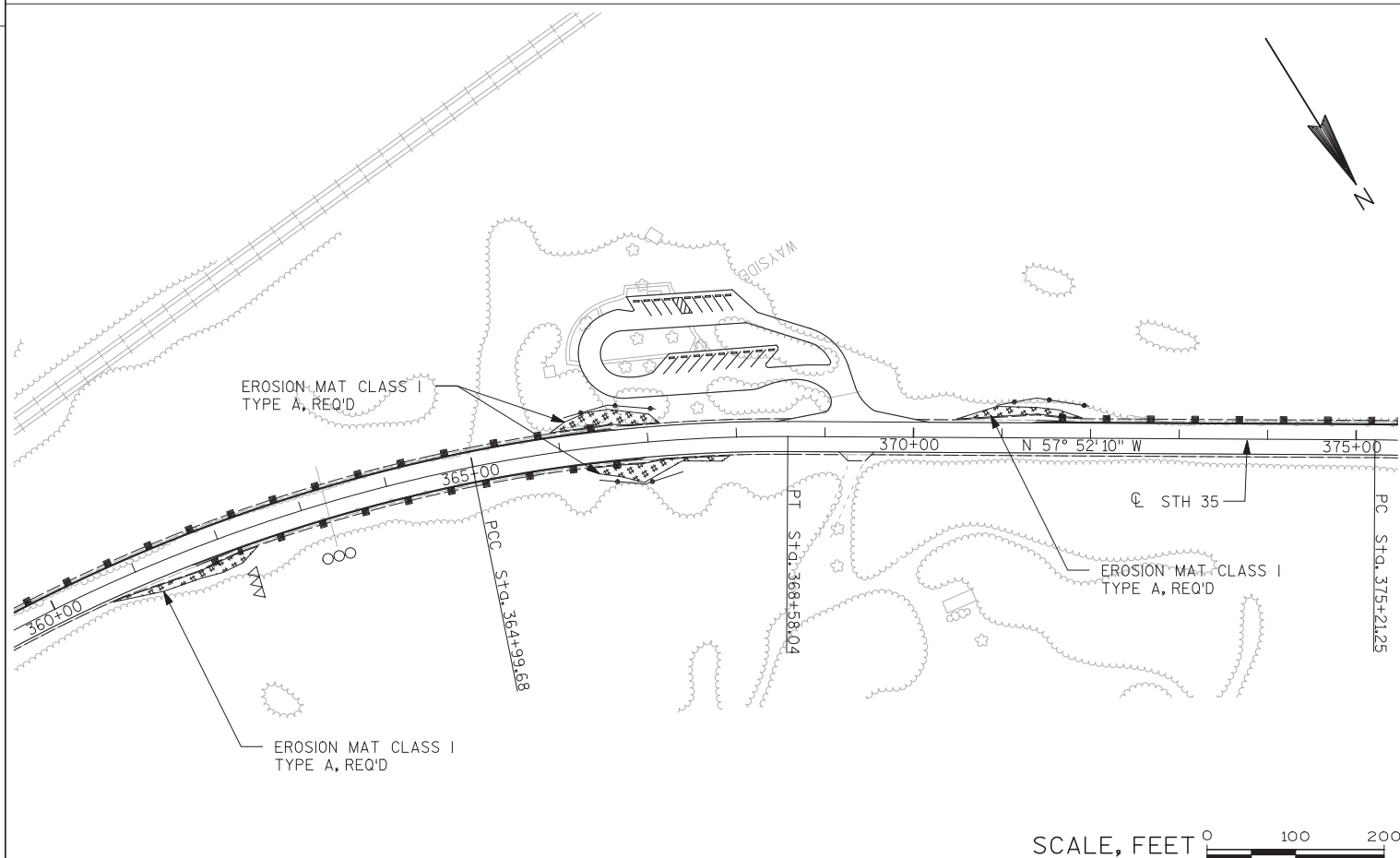
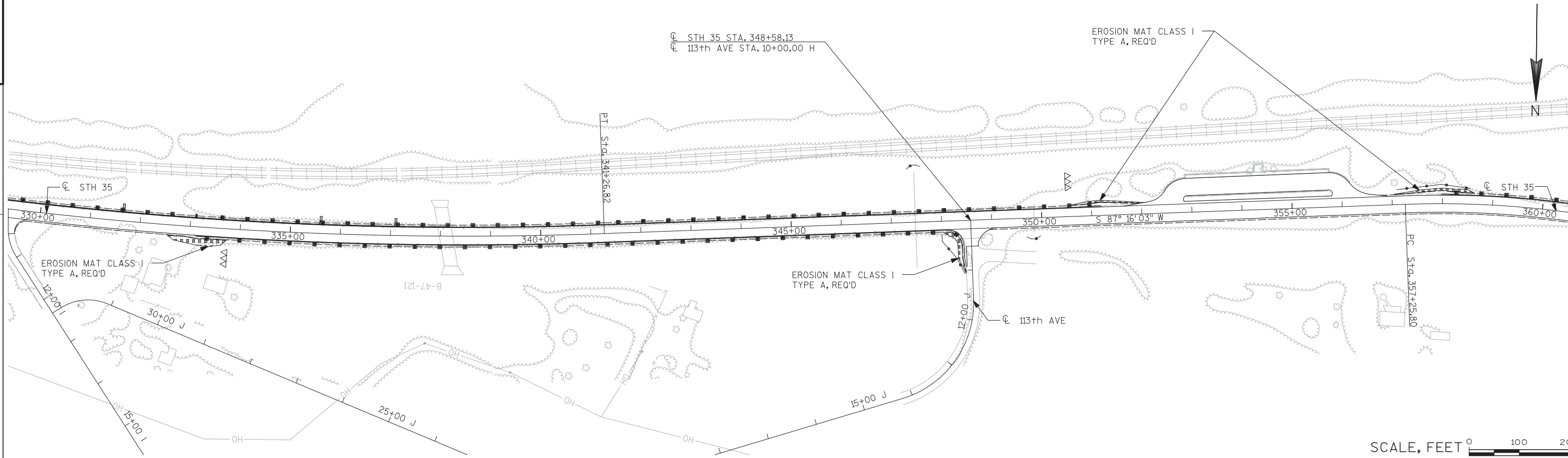


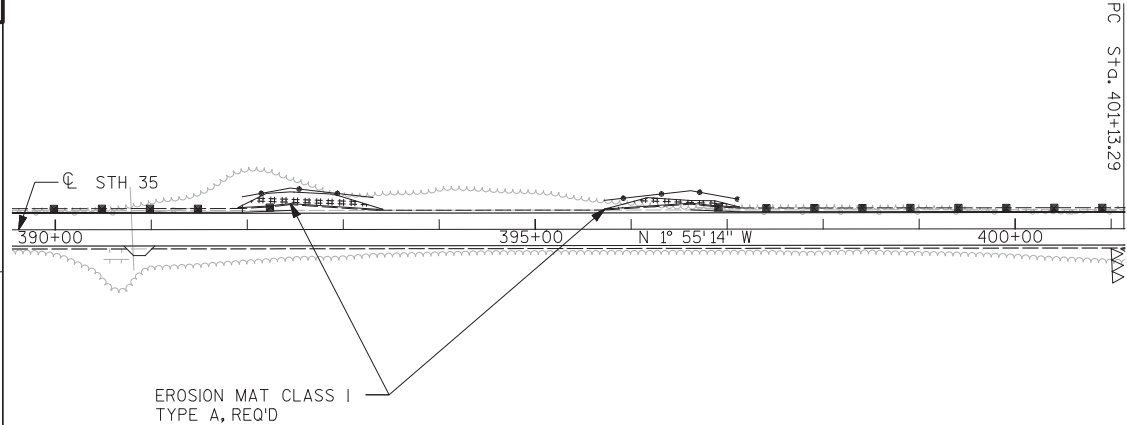
2

2





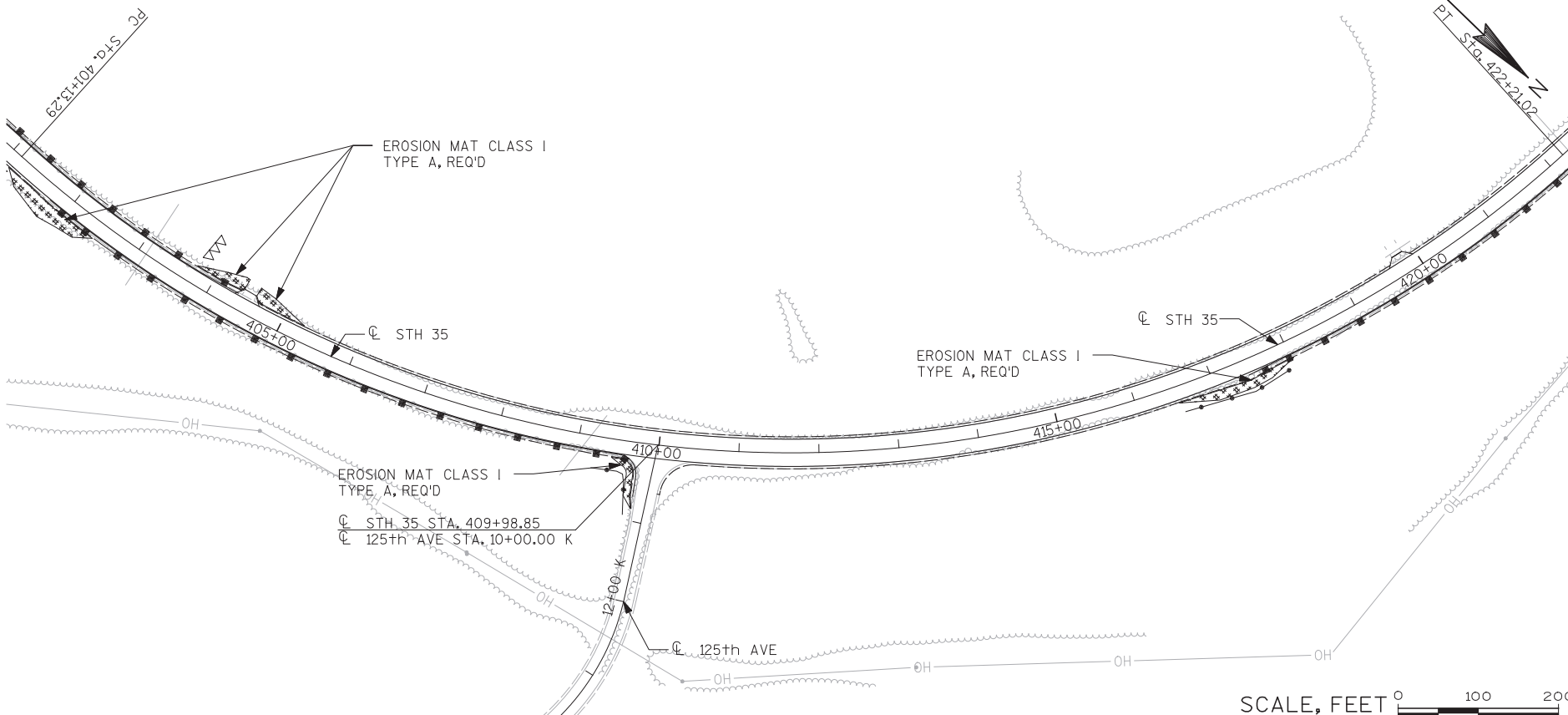




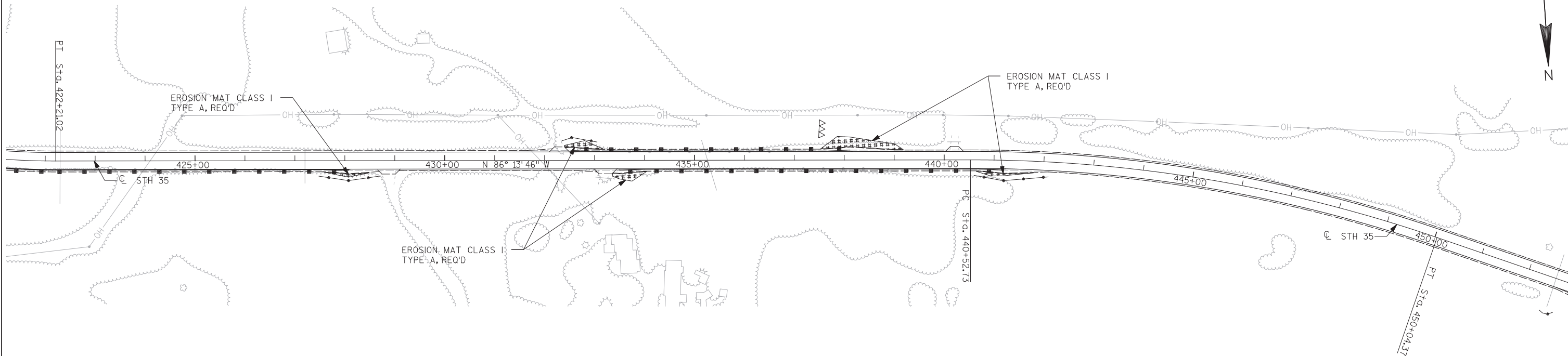
LEGEND

- SILT FENCE
- ⊗ INLET PROTECTION TYPE C
- △△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

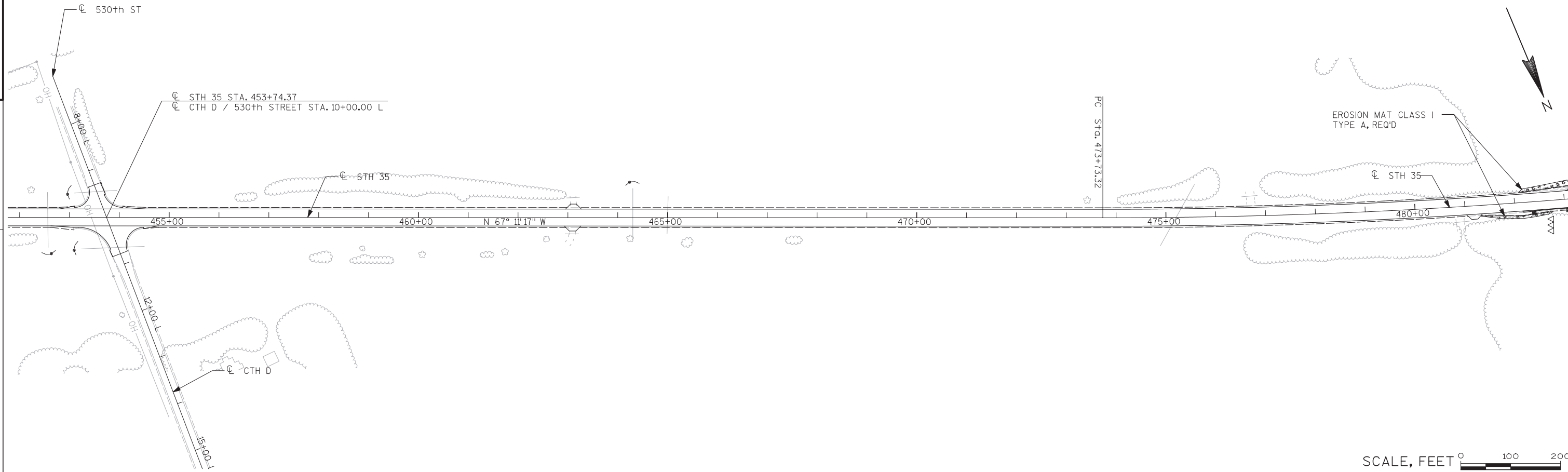
SCALE, FEET 0 100 200



SCALE, FEET 0 100 200



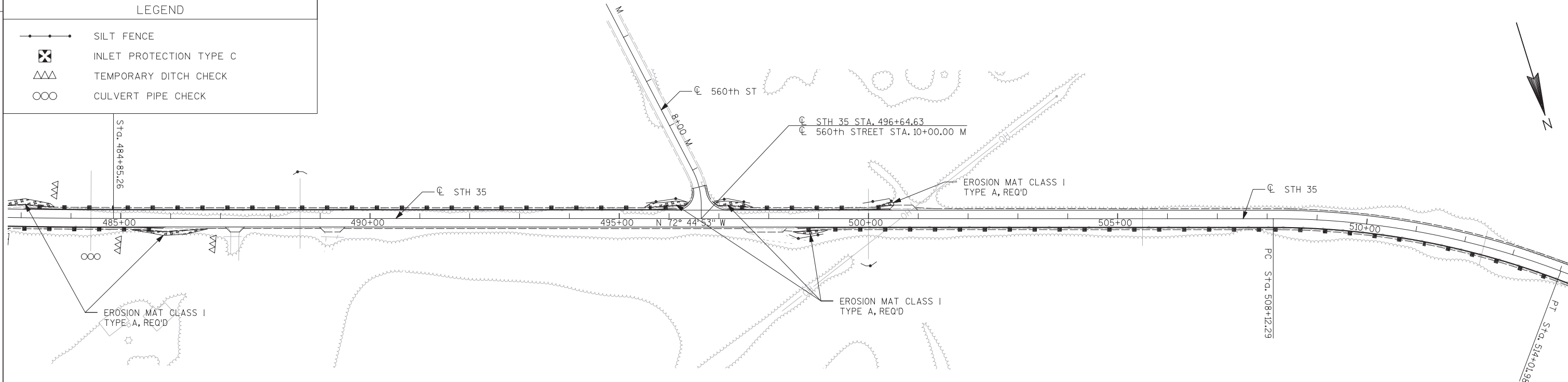
SCALE, FEET 0 100 200



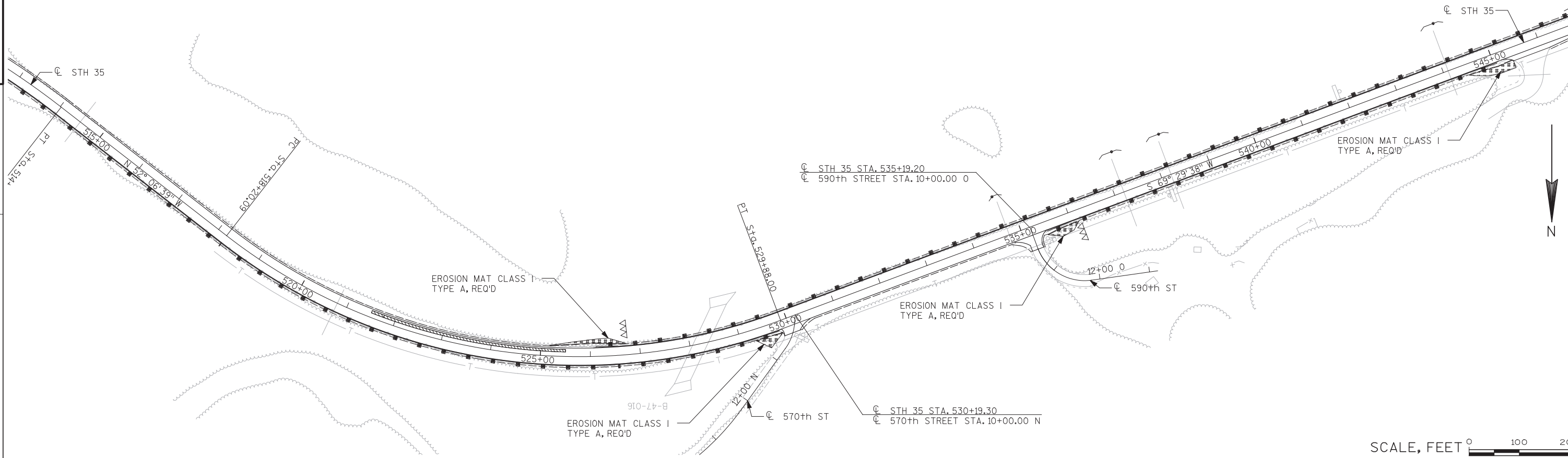
LEGEND

- SILT FENCE
- INLET PROTECTION TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

SCALE, FEET 0 100 200

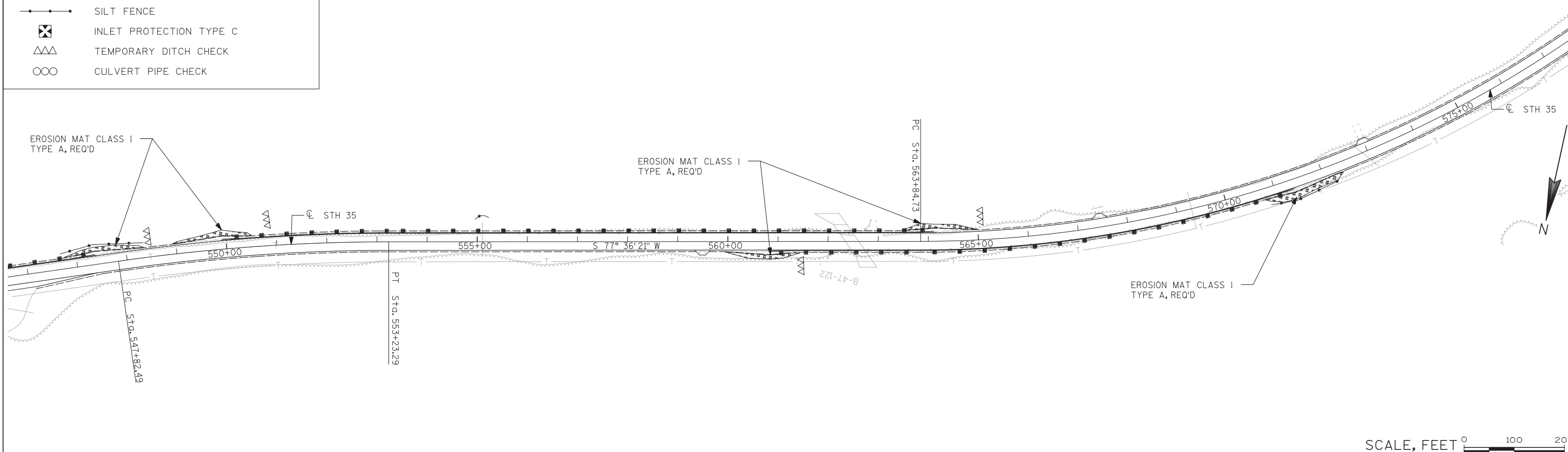


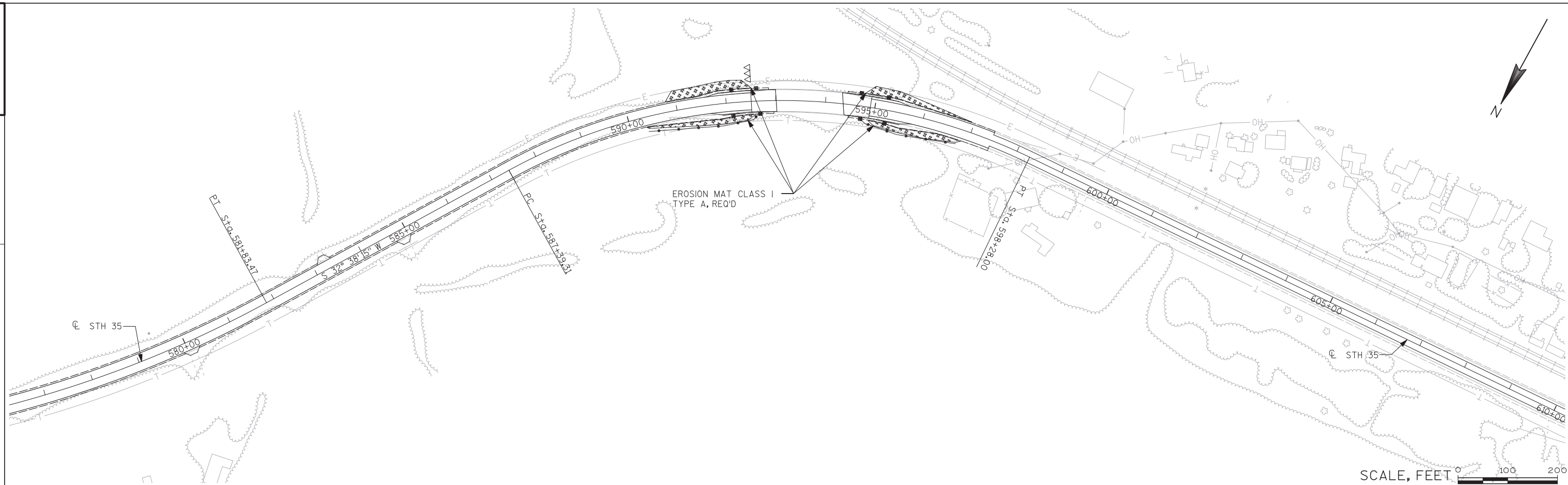
SCALE, FEET 0 100 200



LEGEND

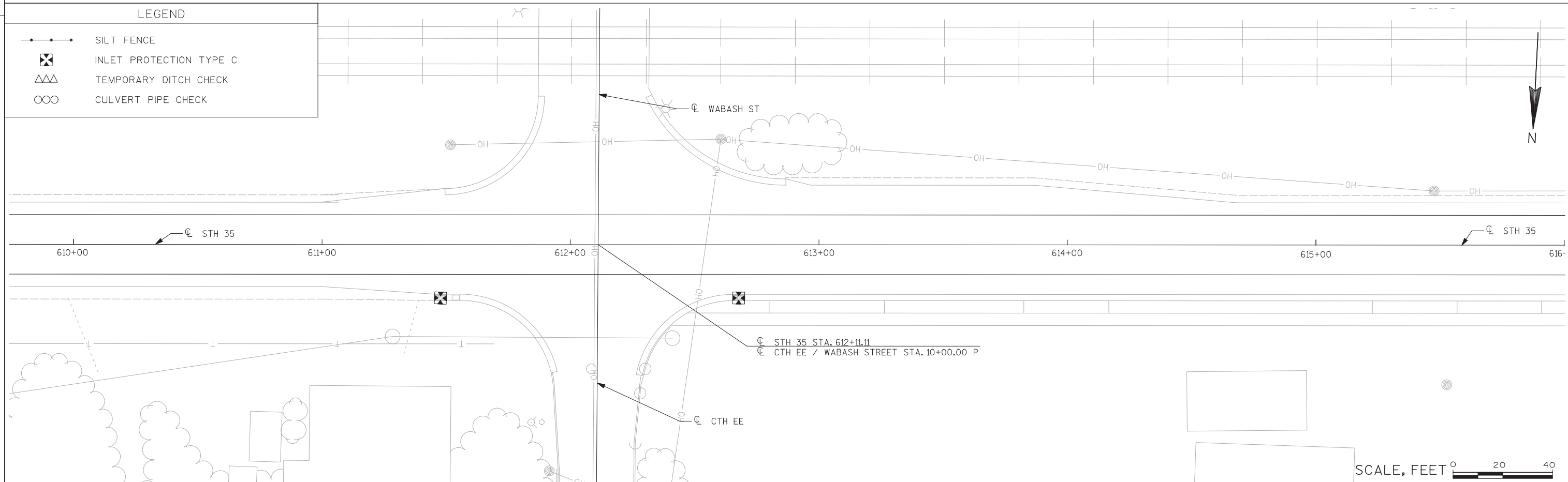
	SILT FENCE
	INLET PROTECTION TYPE C
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK





LEGEND

- SILT FENCE
- ⊠ INLET PROTECTION TYPE C
- △△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK



PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

EROSION CONTROL PLAN

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

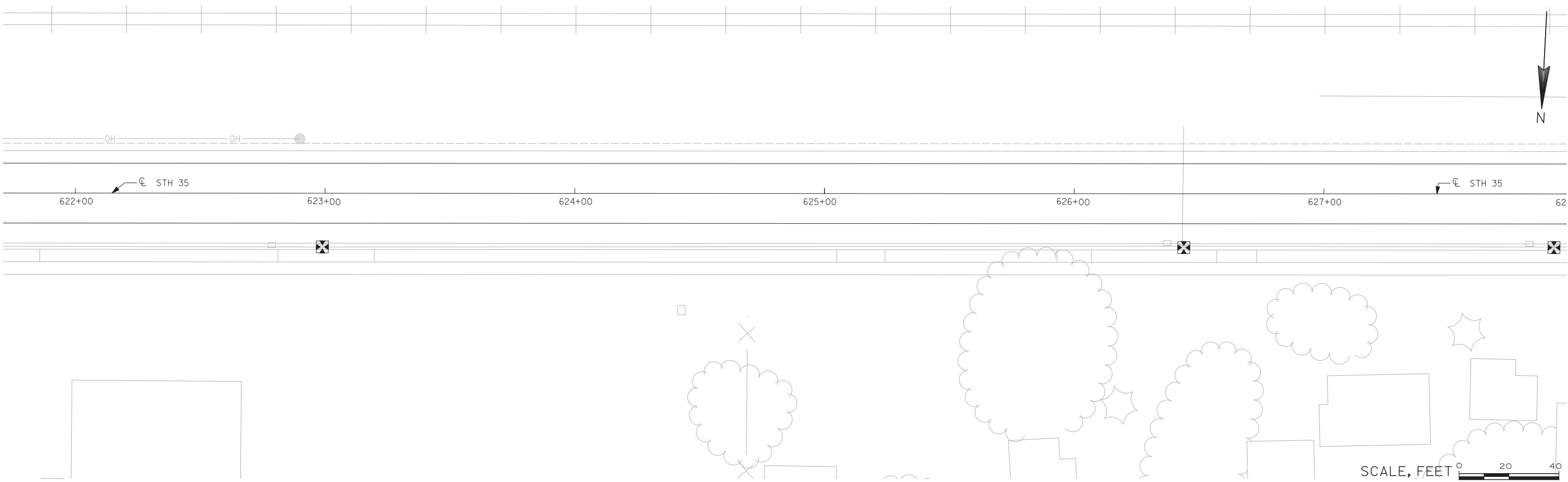
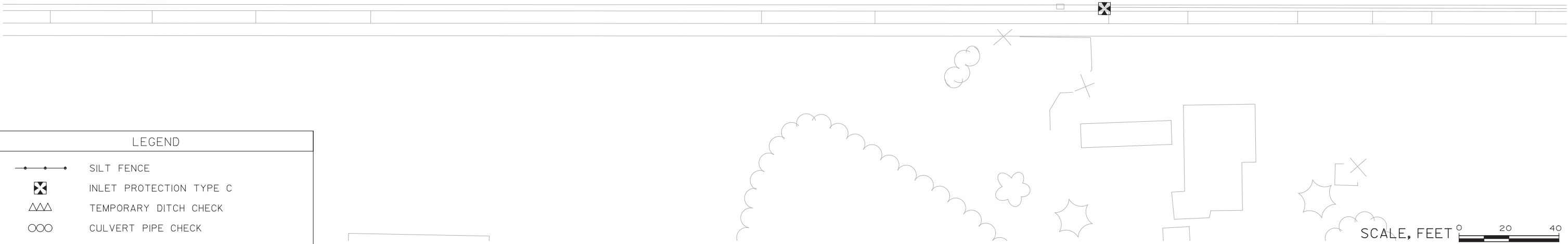
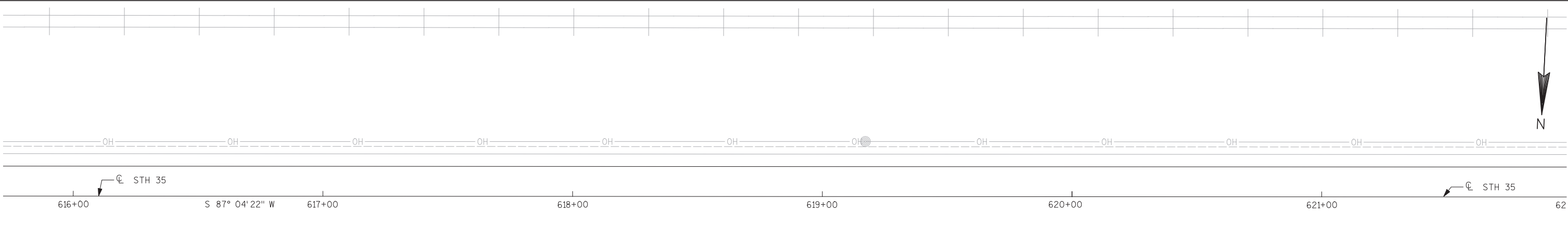
PLOT BY : \$\$...plotuser...\$\$

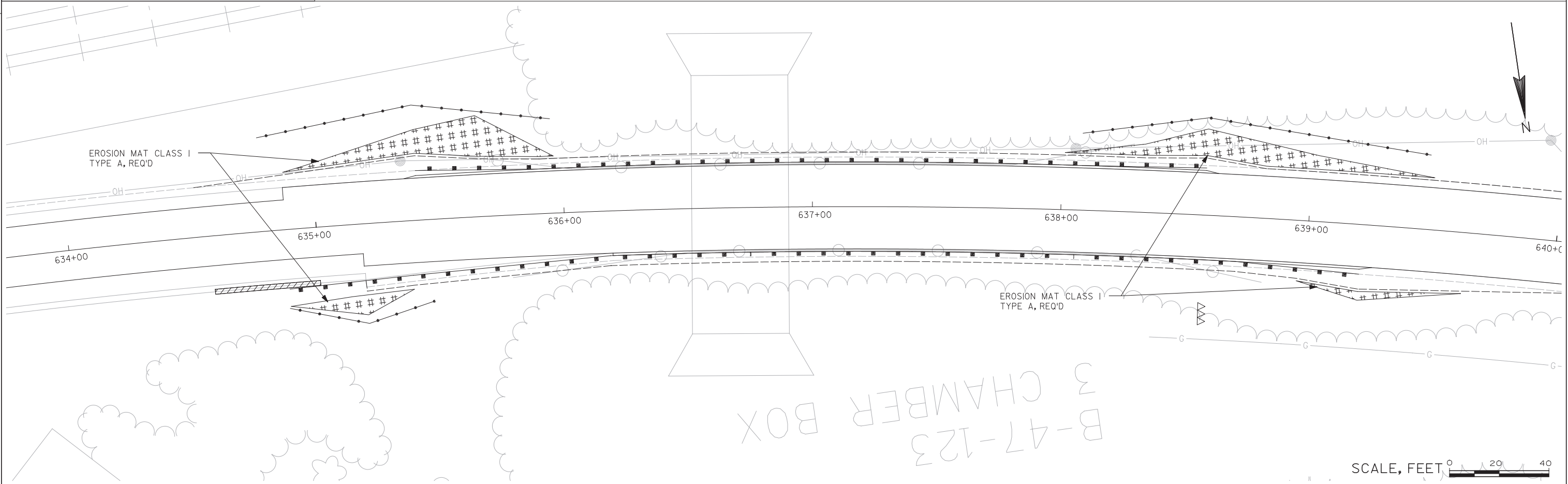
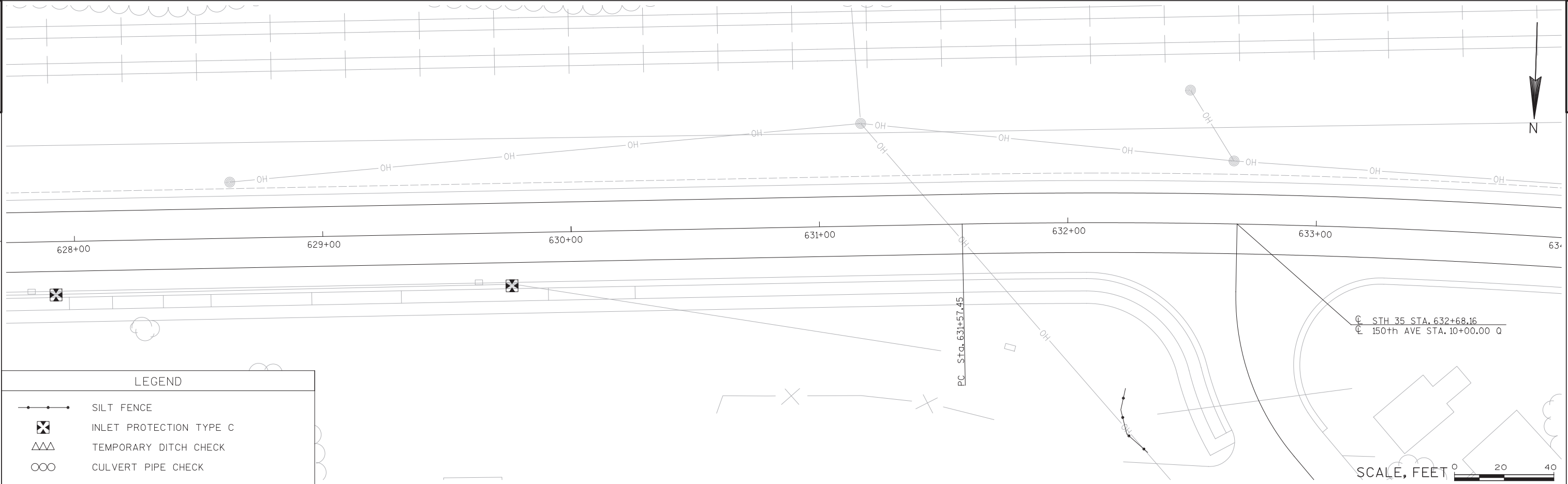
PLOT NAME :

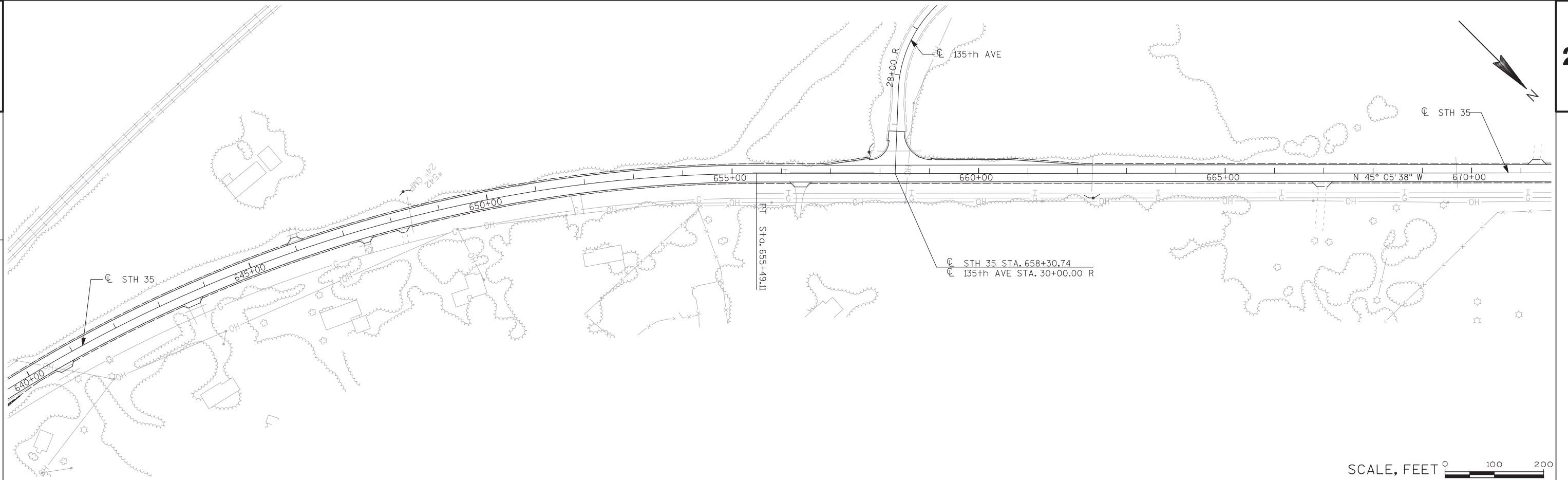
PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 32

ET 42

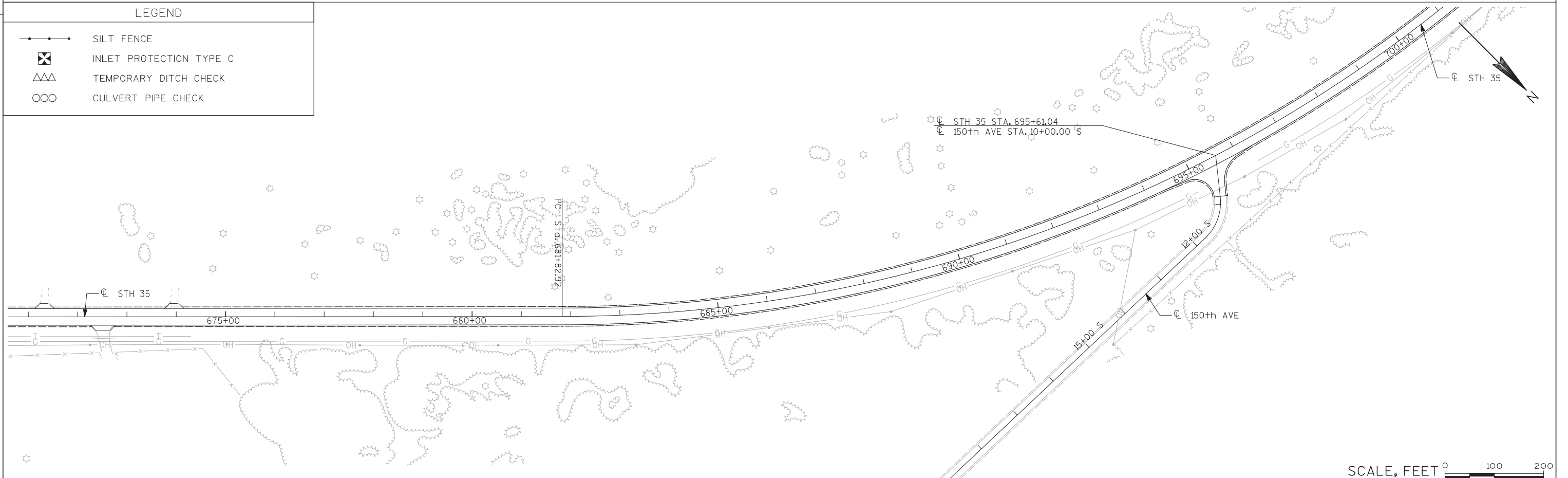






LEGEND

- SILT FENCE
- ⊗ INLET PROTECTION TYPE C
- △△ TEMPORARY DITCH CHECK
- OOO CULVERT PIPE CHECK



PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

EROSION CONTROL PLAN

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

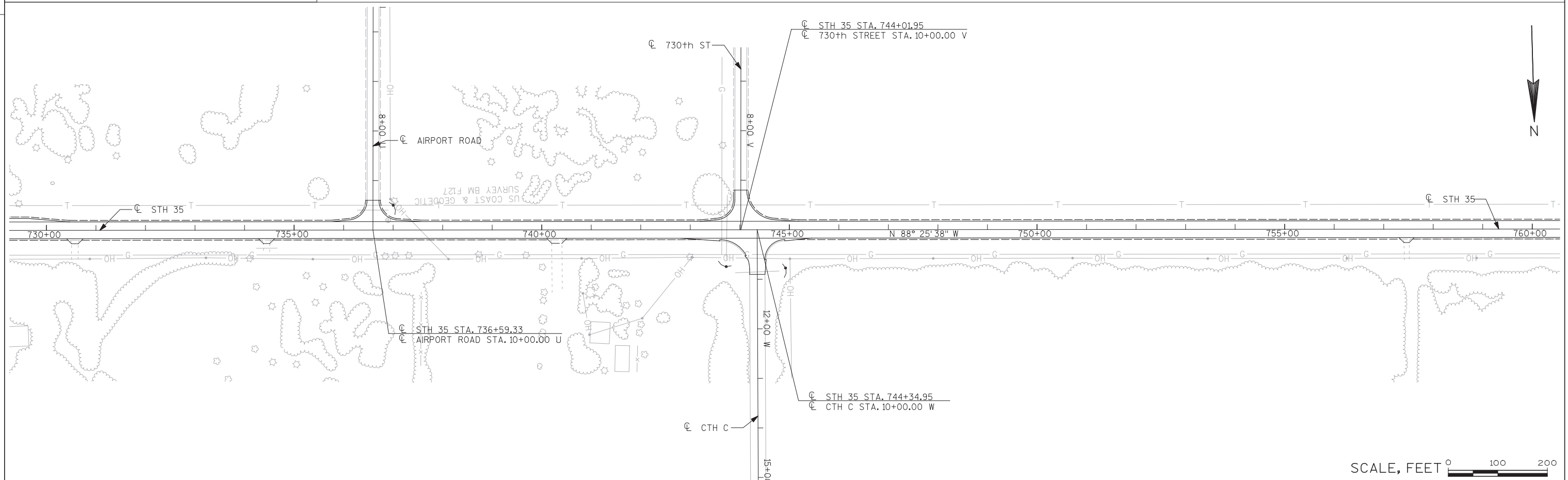
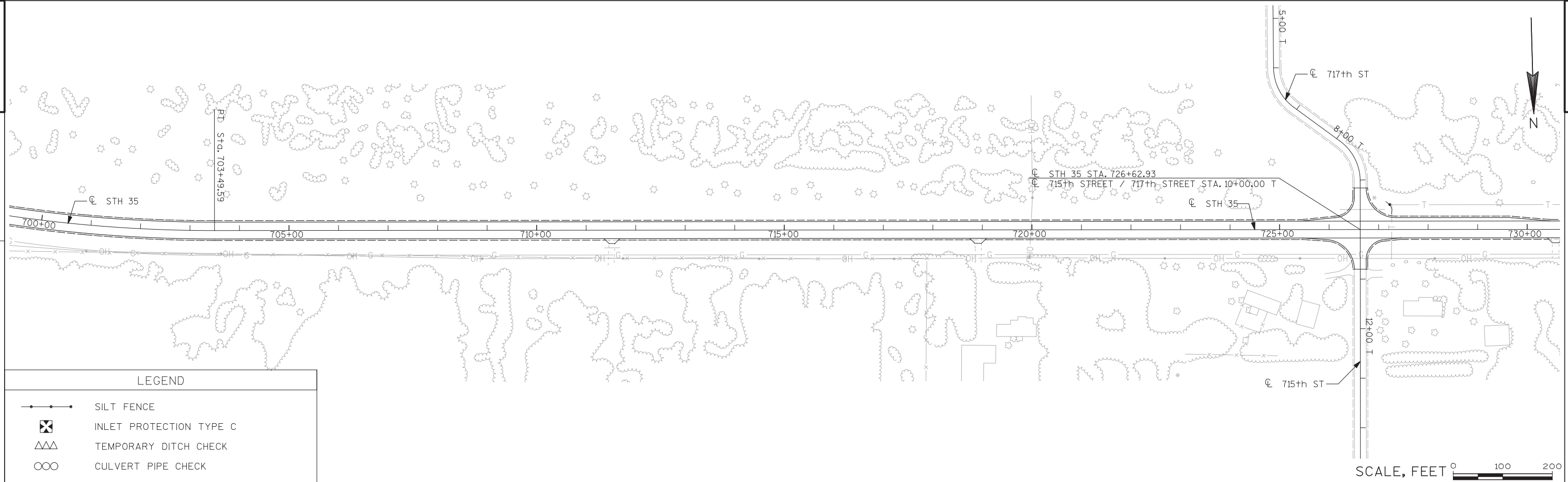
PLOT BY : \$\$...plotuser...\$\$

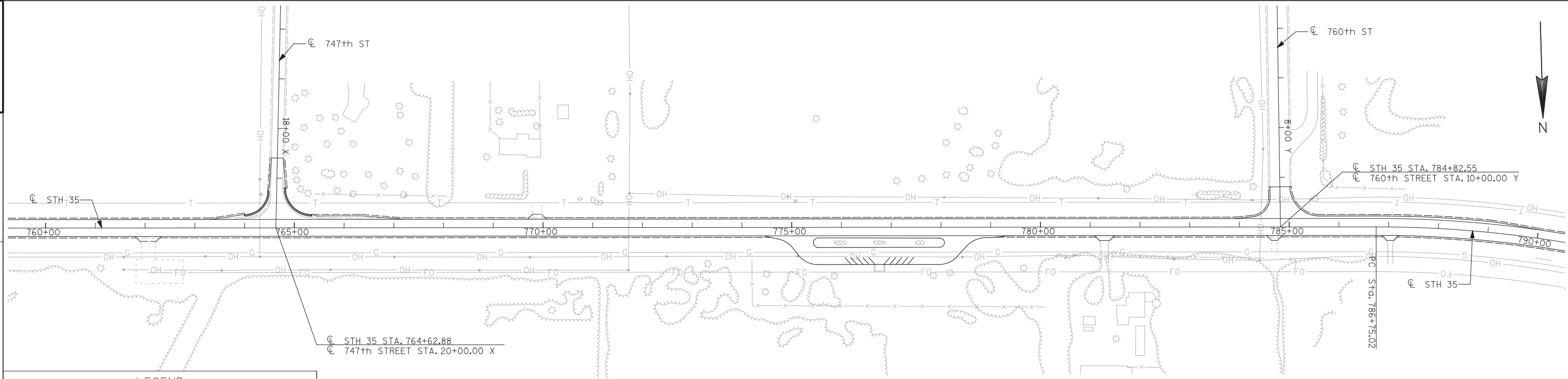
PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 35

ET 42

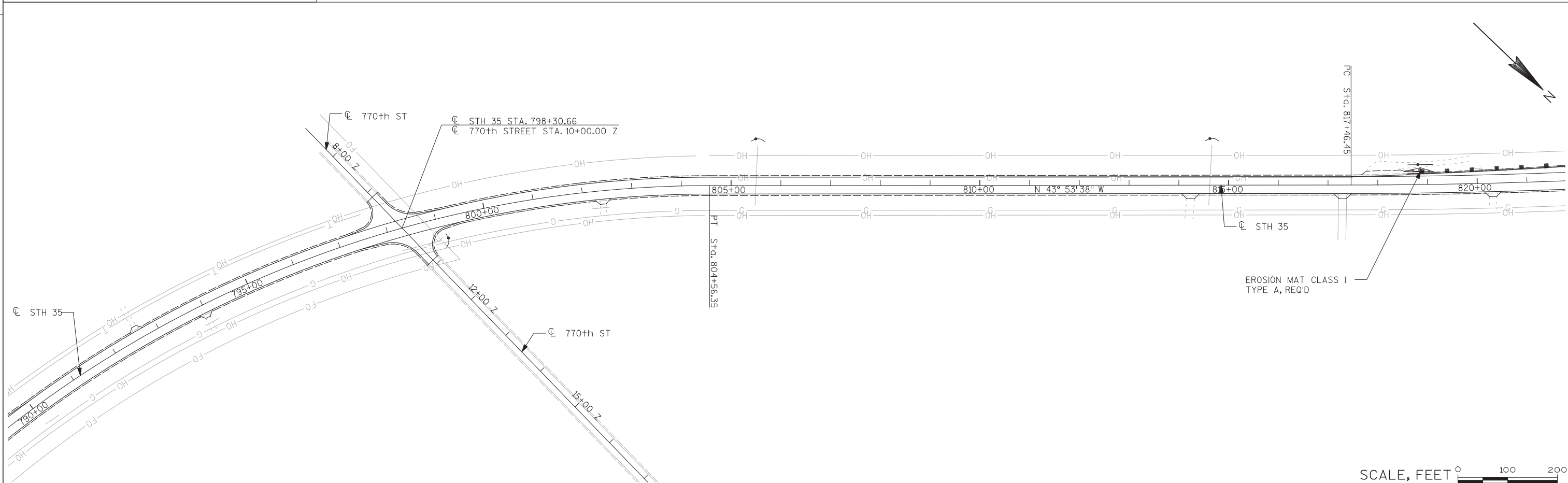




LEGEND

- SILT FENCE
- ⊗ INLET PROTECTION TYPE C
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

SCALE, FEET 0 100 200



EROSION MAT CLASS I
TYPE A, REQ'D

SCALE, FEET 0 100 200

PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

EROSION CONTROL PLAN

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

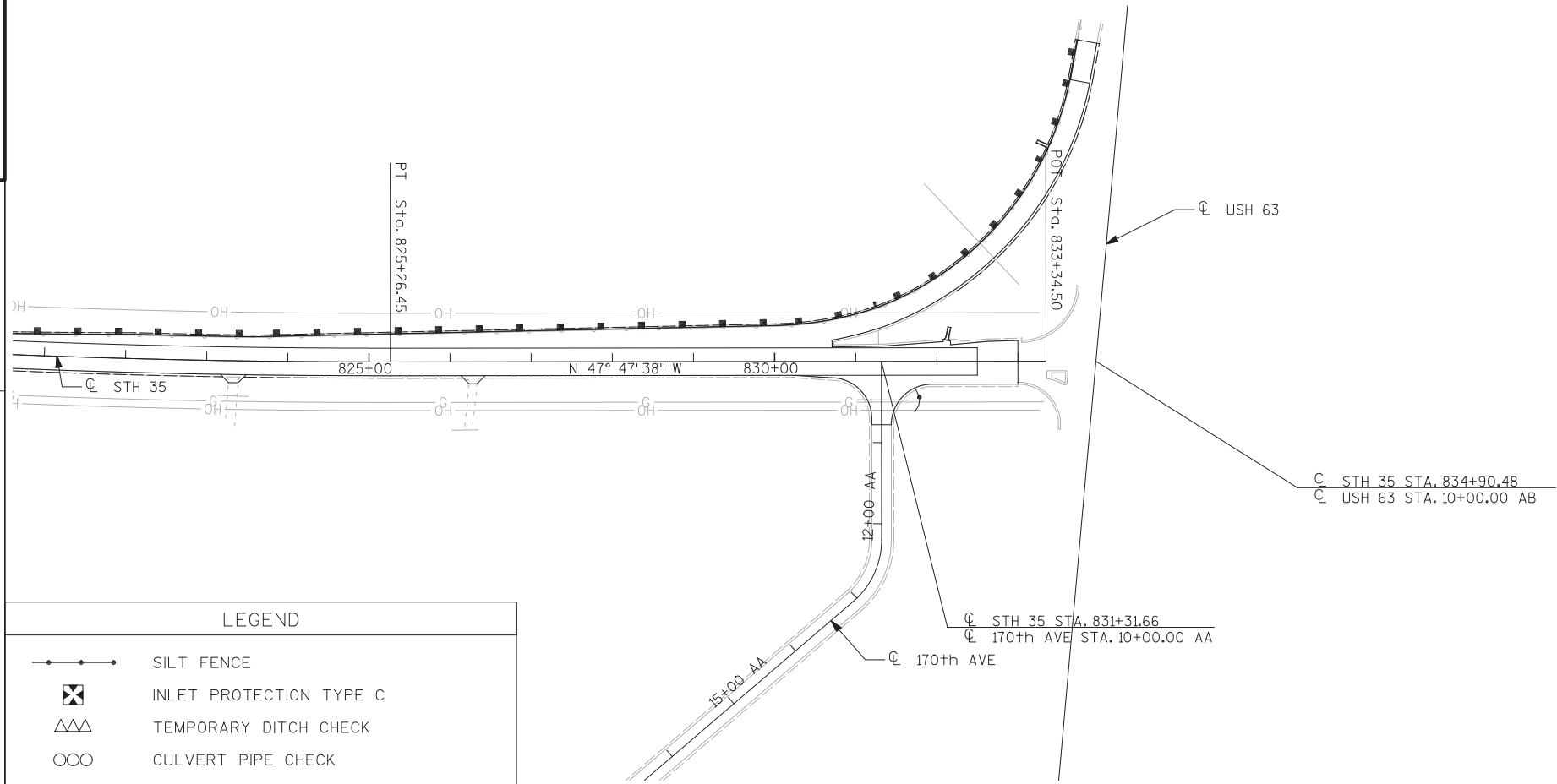
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 37

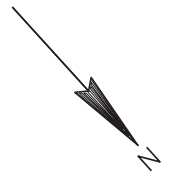
ET 42

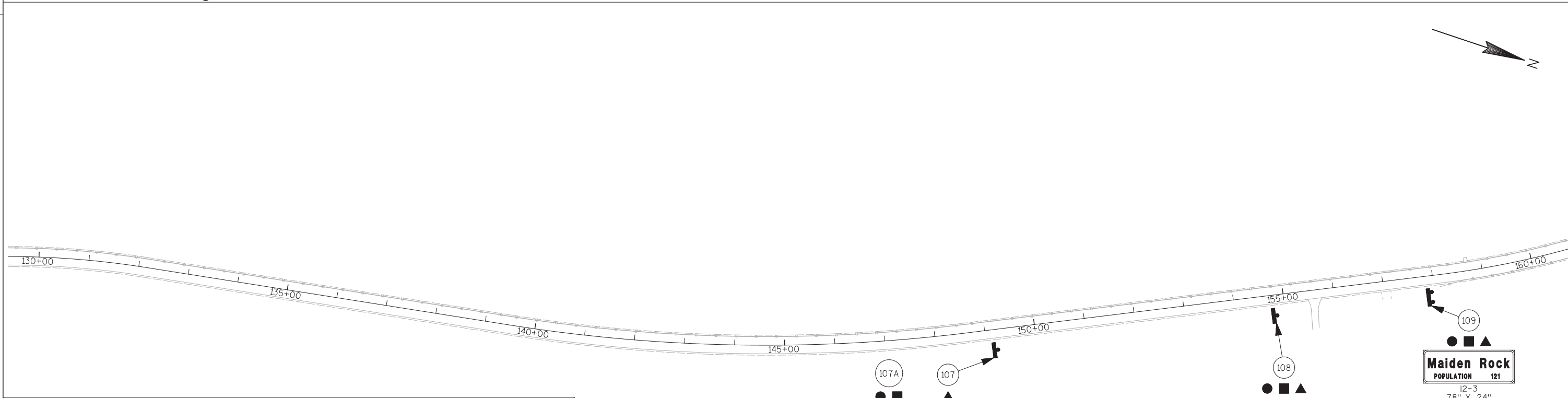
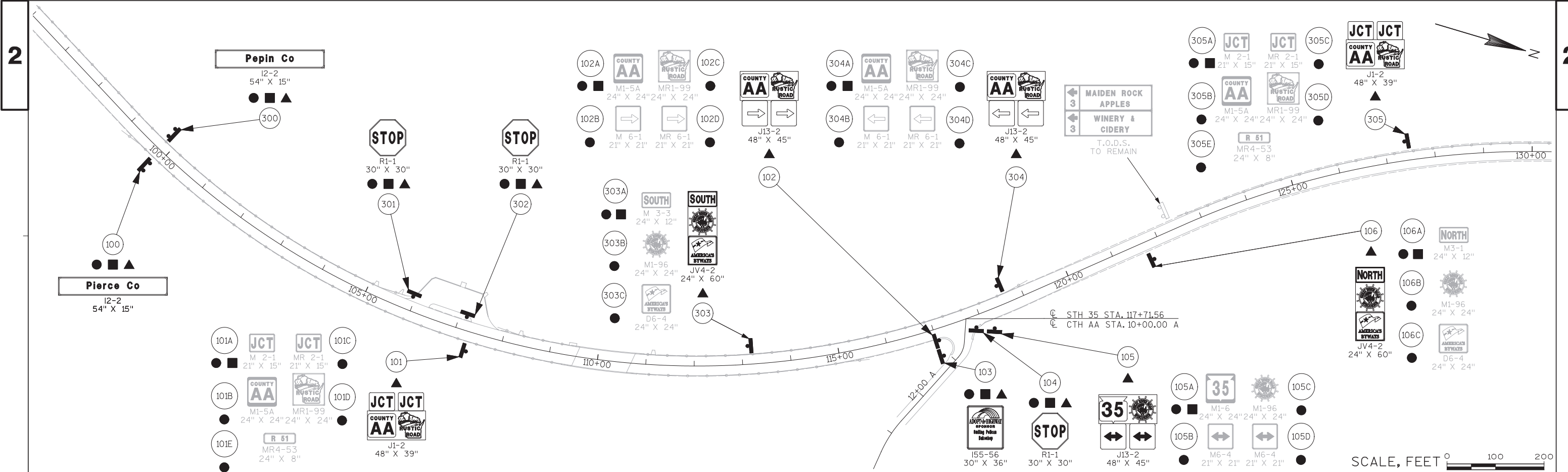


LEGEND

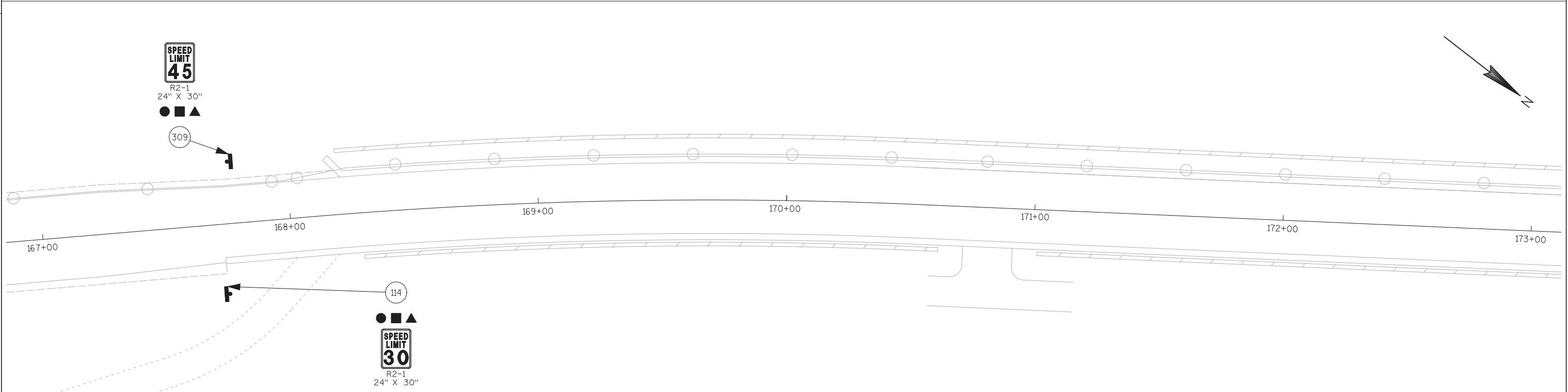
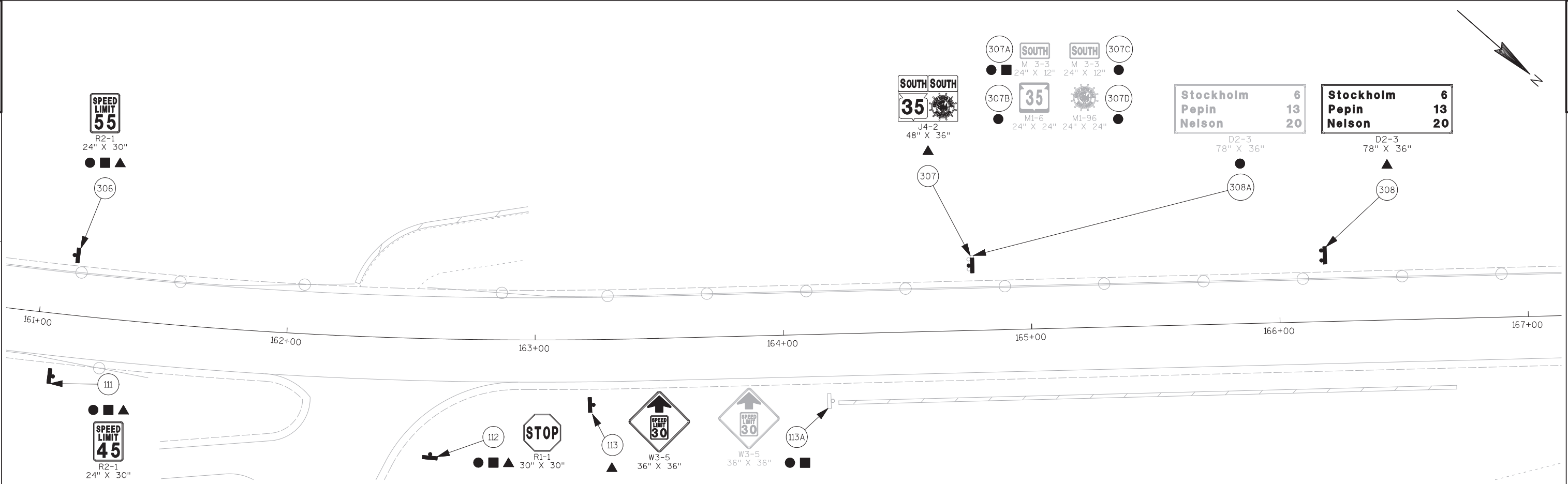
- SILT FENCE
- ⊗ INLET PROTECTION TYPE C
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

SCALE, FEET 0 100 200





LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	MOVING SIGNS TYPE II
	REMOVING SIGNS TYPE II
	REMOVING SMALL SIGN SUPPORTS
	SIGNS REFLECTIVE TYPE II
	(X) INDICATES SIGN SIZE



LEGEND

 EXISTING SIGN MOUNTED ON POST(S)

 PROPOSED SIGN MOUNTED ON POST(S)

 DENOTES SIGN NUMBER

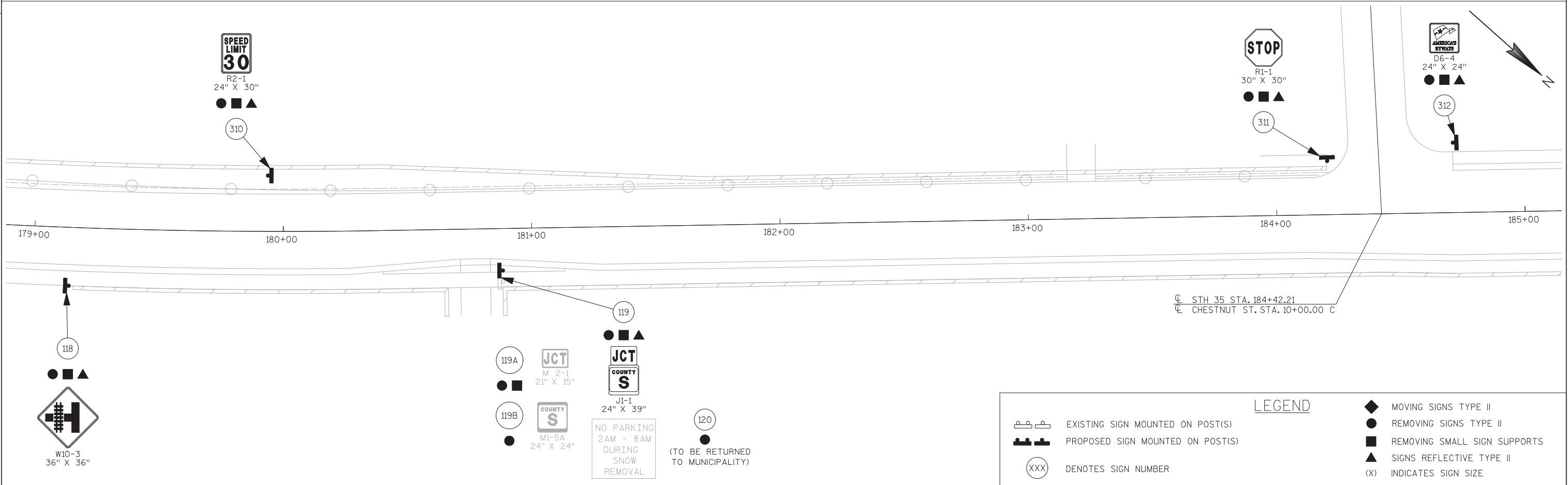
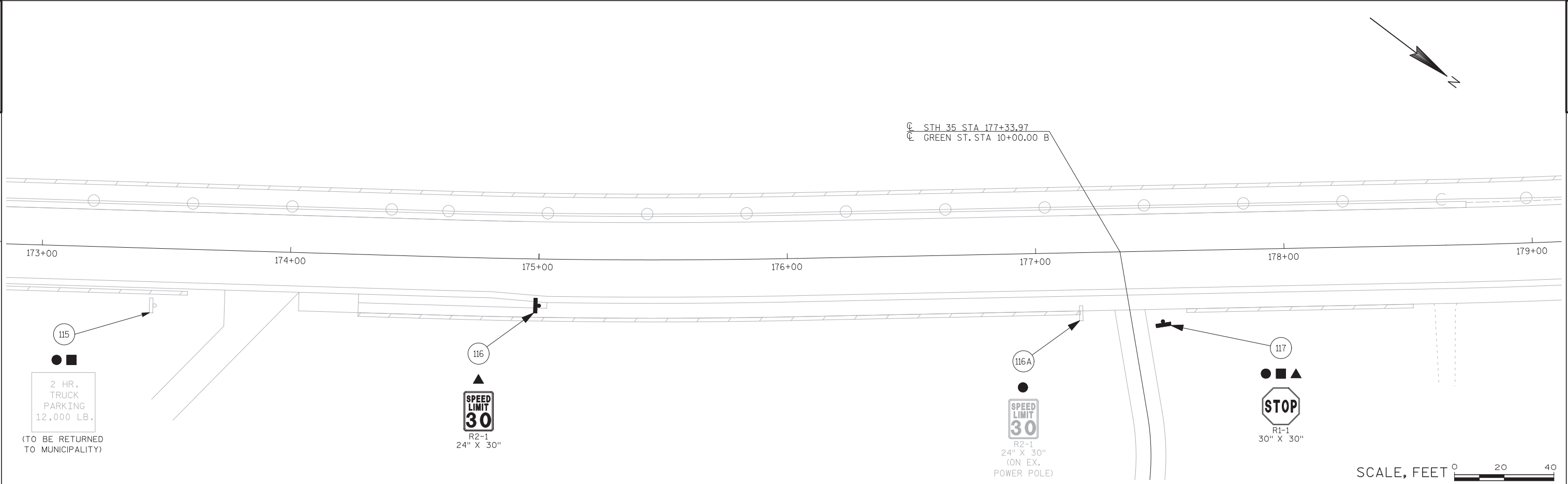
 MOVING SIGNS TYPE II

 REMOVING SIGNS TYPE II

 REMOVING SMALL SIGN SUPPORTS

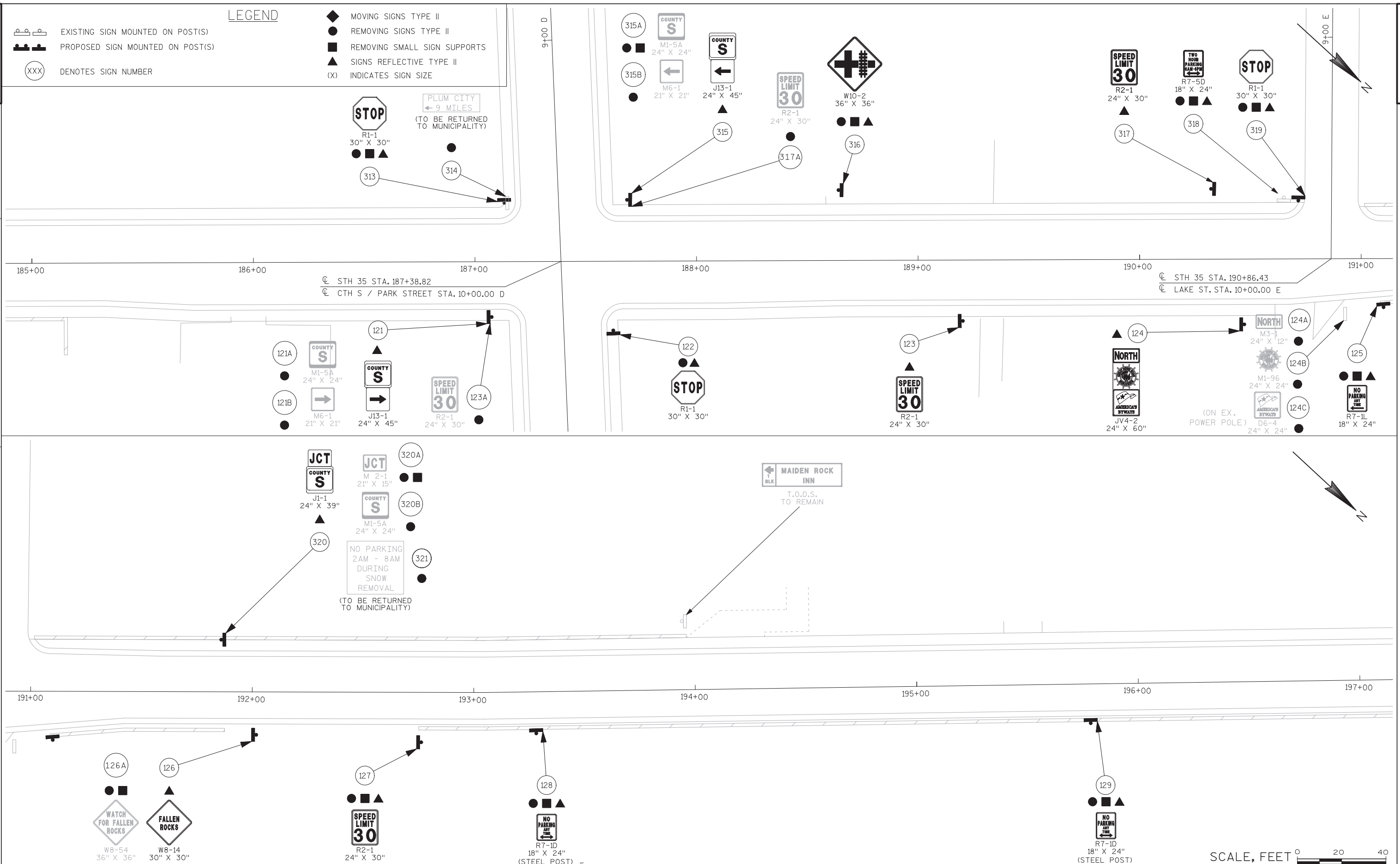
 SIGNS REFLECTIVE TYPE II

 (X) INDICATES SIGN SIZE

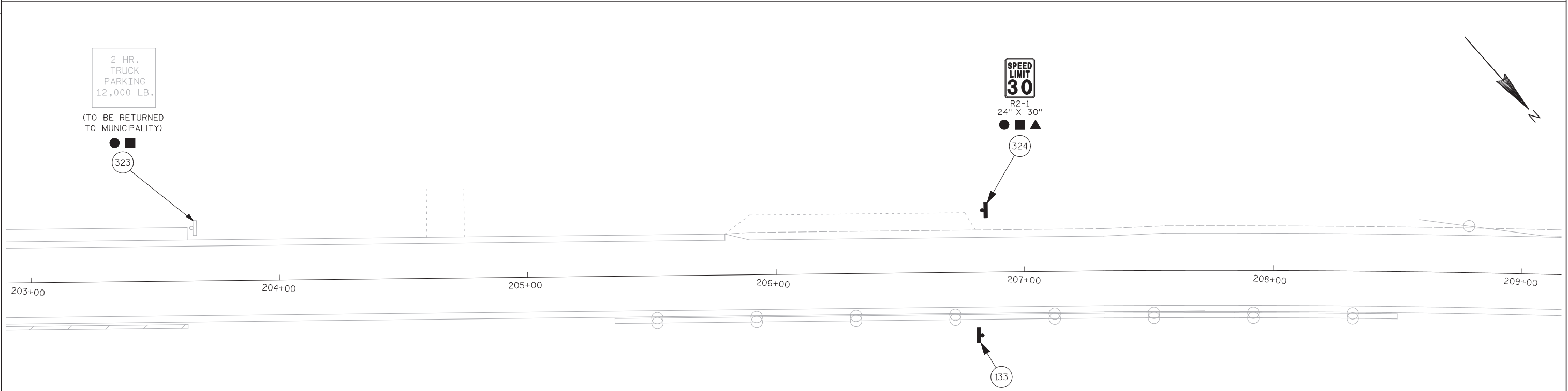
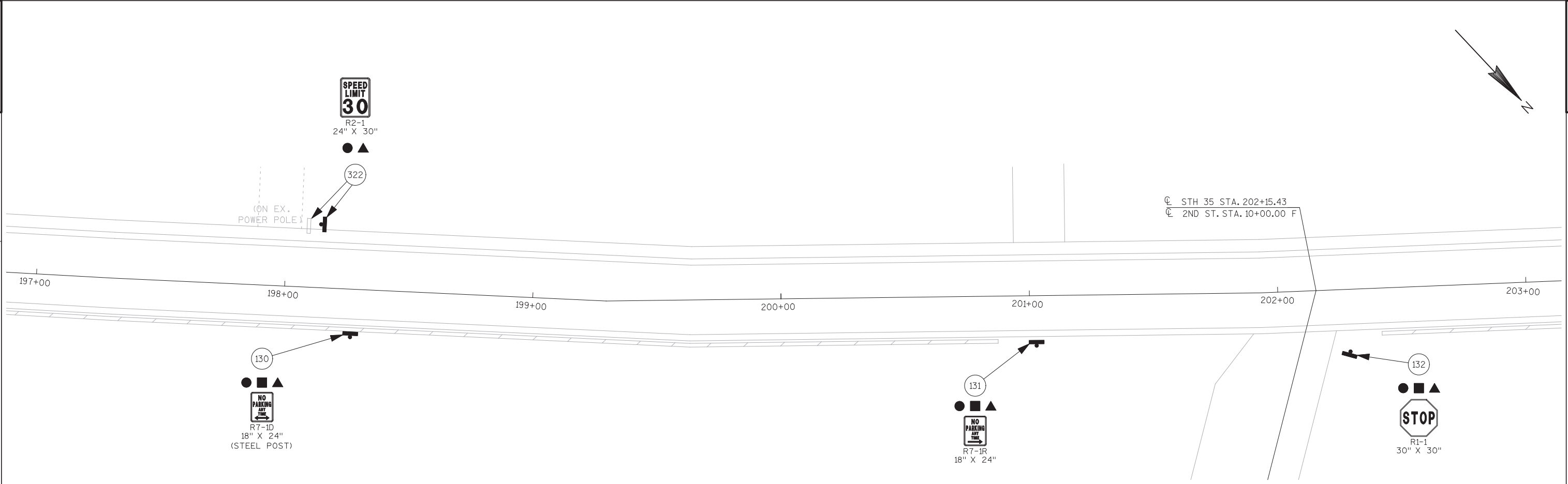


 EXISTING SIGN MOUNTED ON POST(S)
 PROPOSED SIGN MOUNTED ON POST(S)
 DENOTES SIGN NUMBER

- ◆ MOVING SIGNS TYPE II
- REMOVING SIGNS TYPE II
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE II
- (X) INDICATES SIGN SIZE



E



LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	MOVING SIGNS TYPE II
	REMOVING SIGNS TYPE II
	REMOVING SMALL SIGN SUPPORTS
	SIGNS REFLECTIVE TYPE II
	INDICATES SIGN SIZE



270+00 275+00 280+00 285+00 290+00 295+00 300+00



300+00 305+00 310+00 315+00 320+00 325+00 330+00 335+00

NO
PASSING
ZONE
W14-3
48" X 36"
151

CL STH 35 STA. 329+35.54
CL 452nd STREET STA. 10+00.00 I

ADOPT-A-HIGHWAY
SPONSOR
RAISED RACK
BUCKETS
4-8 CLM
155-56
30" X 36"
341

152
D5-63
60" X 36"
HISTORICAL
MARKER
1/2 MILE

153
R1-1
30" X 30"
STOP

154
ADOPT-A-HIGHWAY
SPONSOR
RAISED RACK
AREA COMMUNITY
ADVISORY
155-56
30" X 36"



 EXISTING SIGN MOUNTED ON POST(S)

 PROPOSED SIGN MOUNTED ON POST(S)

 DENOTES SIGN NUMBER

 MOVING SIGNS TYPE II

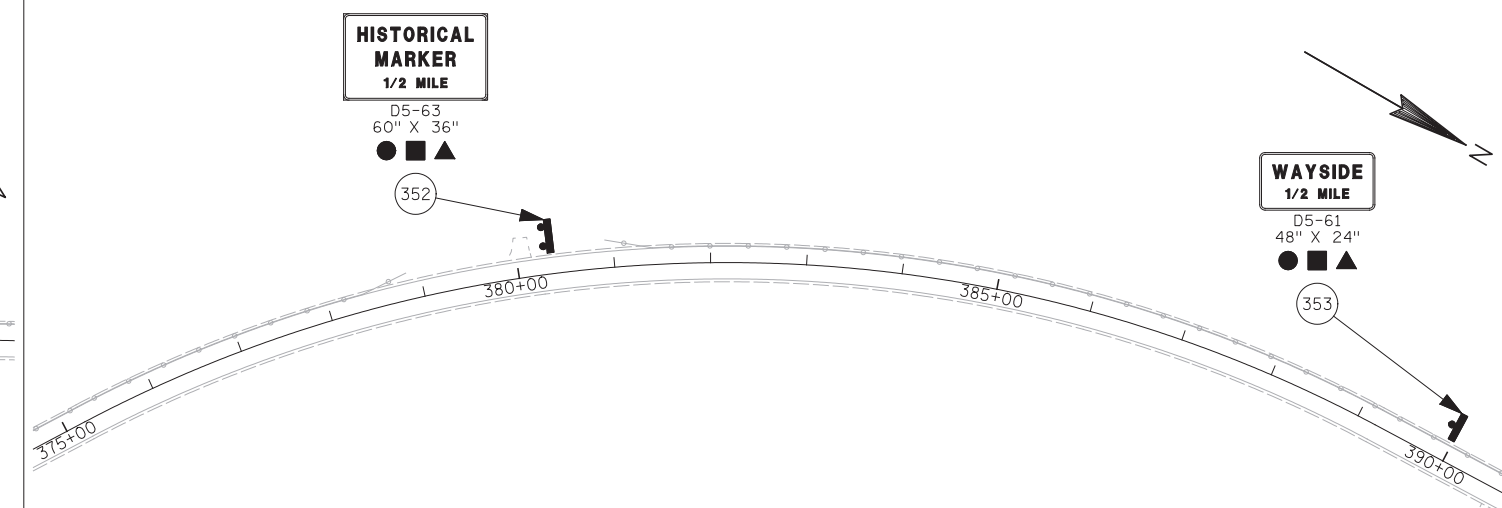
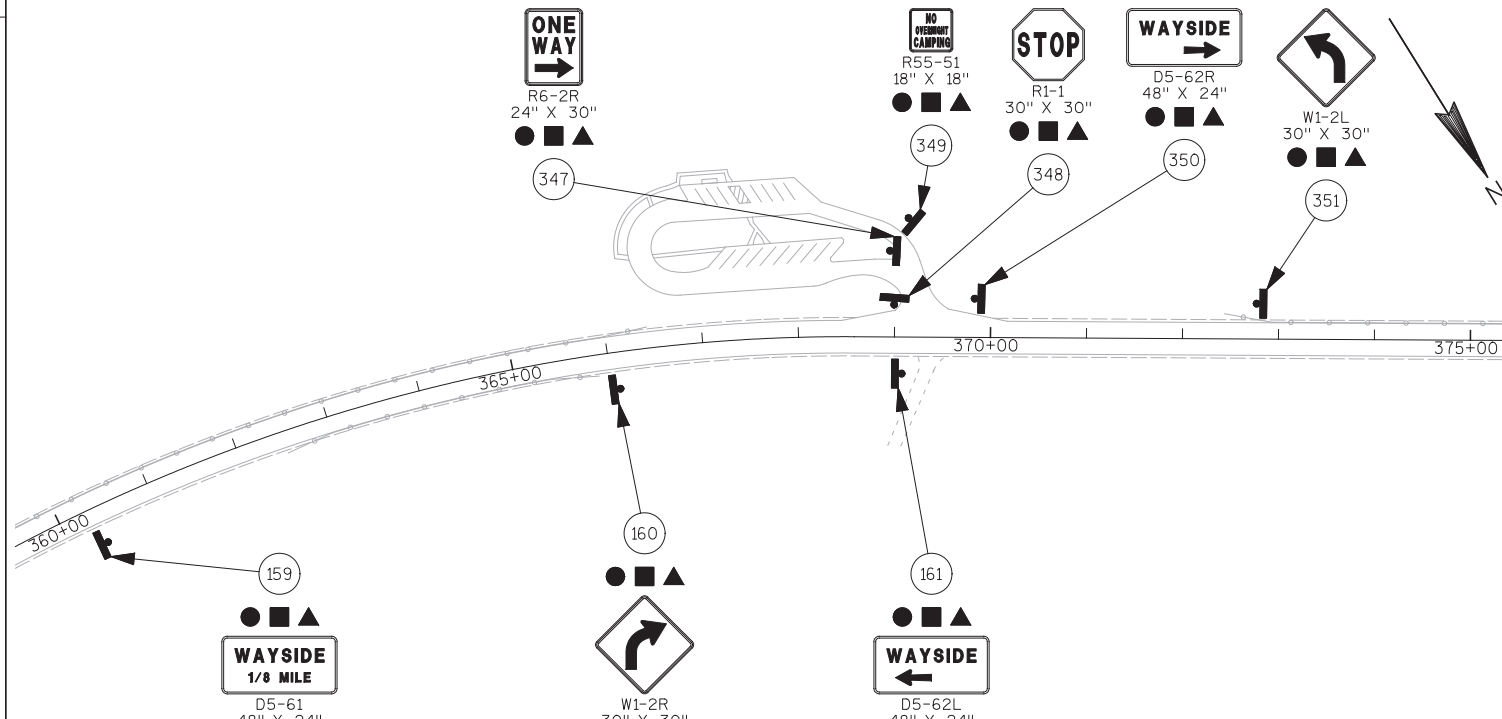
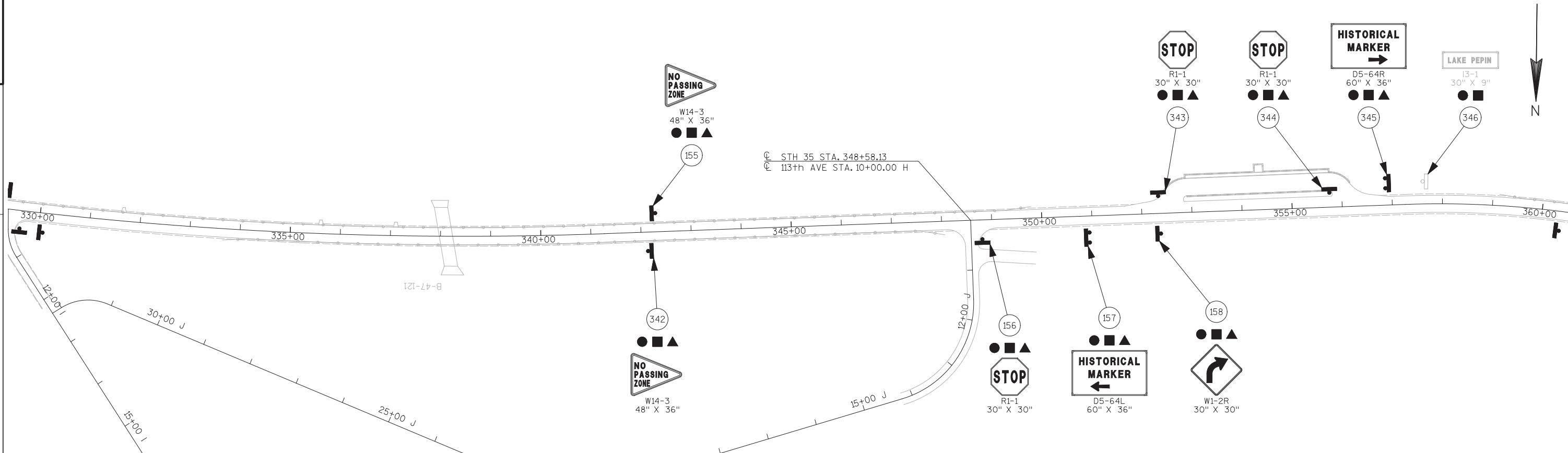
 REMOVING SIGNS TYPE II

 REMOVING SMALL SIGN SUPPORTS

 SIGNS REFLECTIVE TYPE II

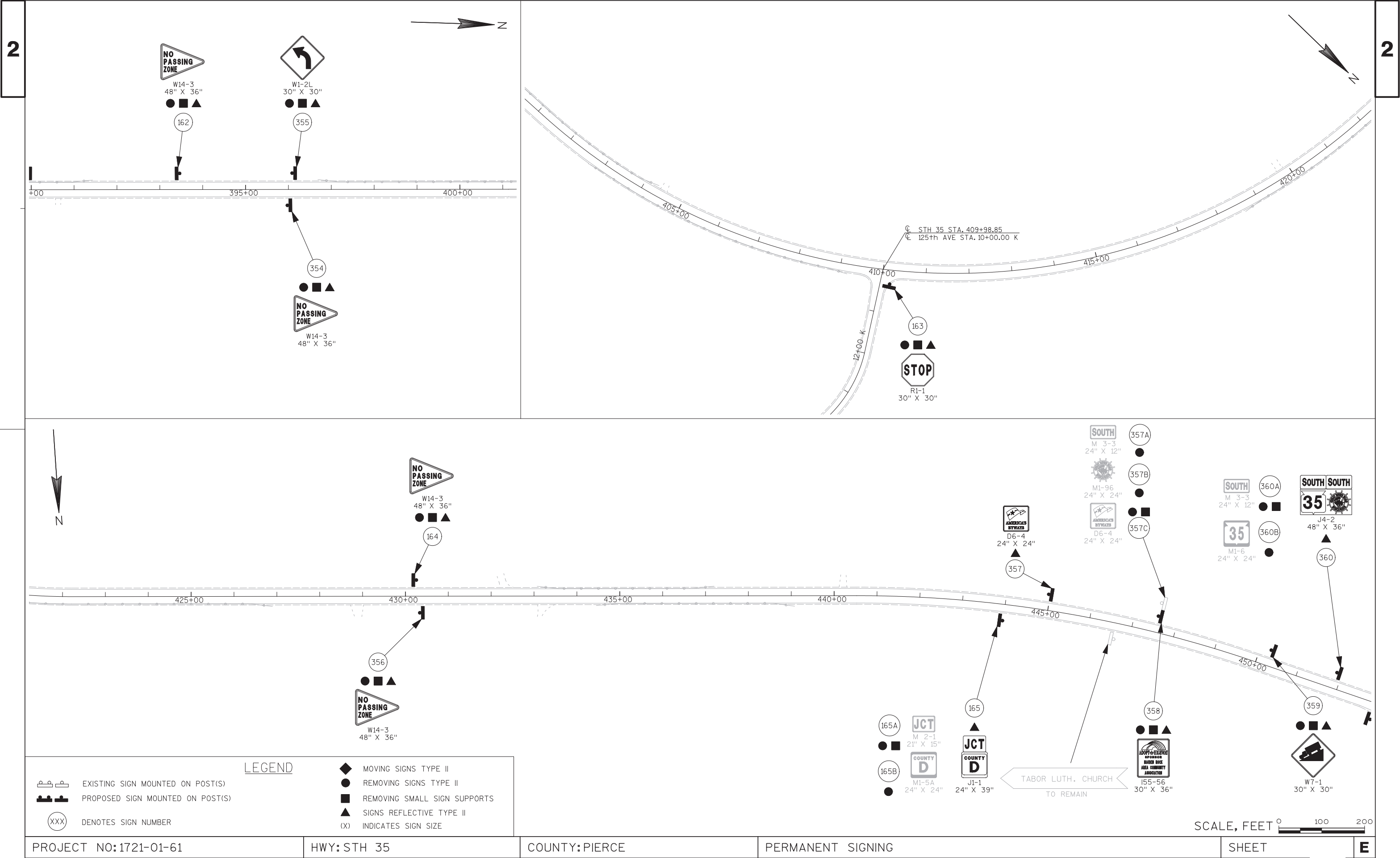
 (X) INDICATES SIGN SIZE

LEGEND



LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	MOVING SIGNS TYPE II
	REMOVING SIGNS TYPE II
	REMOVING SMALL SIGN SUPPORTS
	SIGNS REFLECTIVE TYPE II
	(X) INDICATES SIGN SIZE





PROJECT NO:1721-01-61

HWY: STH 35

COUNTY: PIERCE

PERMANENT SIGNING

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

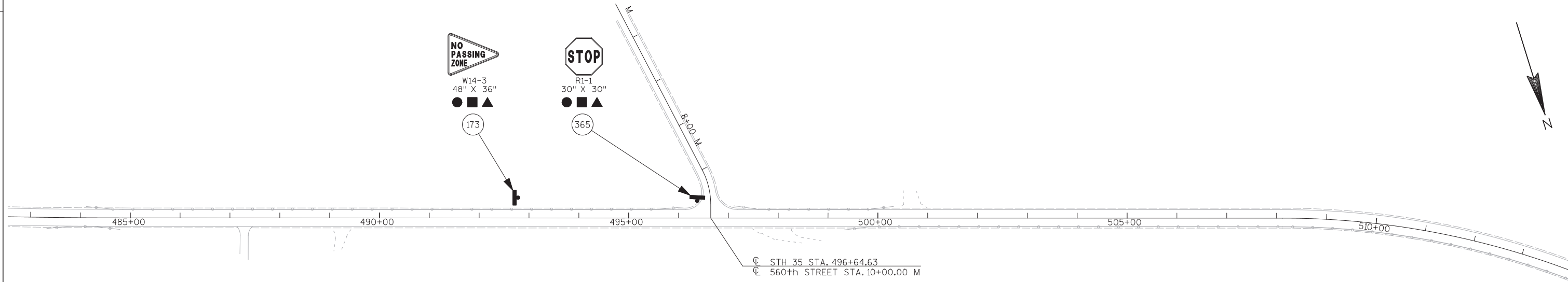
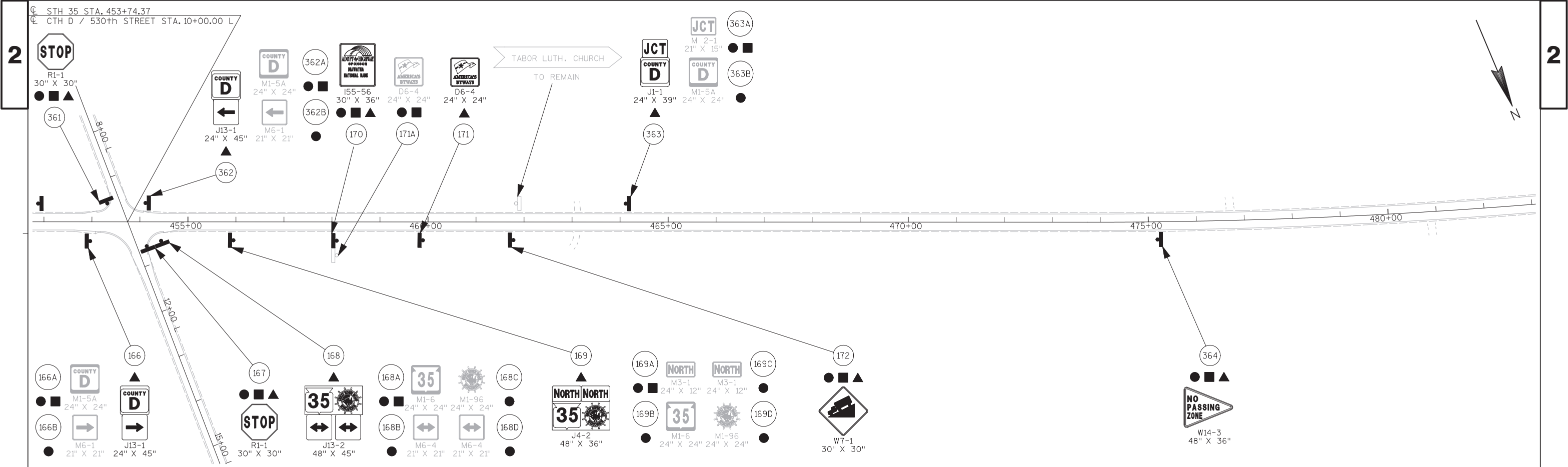
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 47

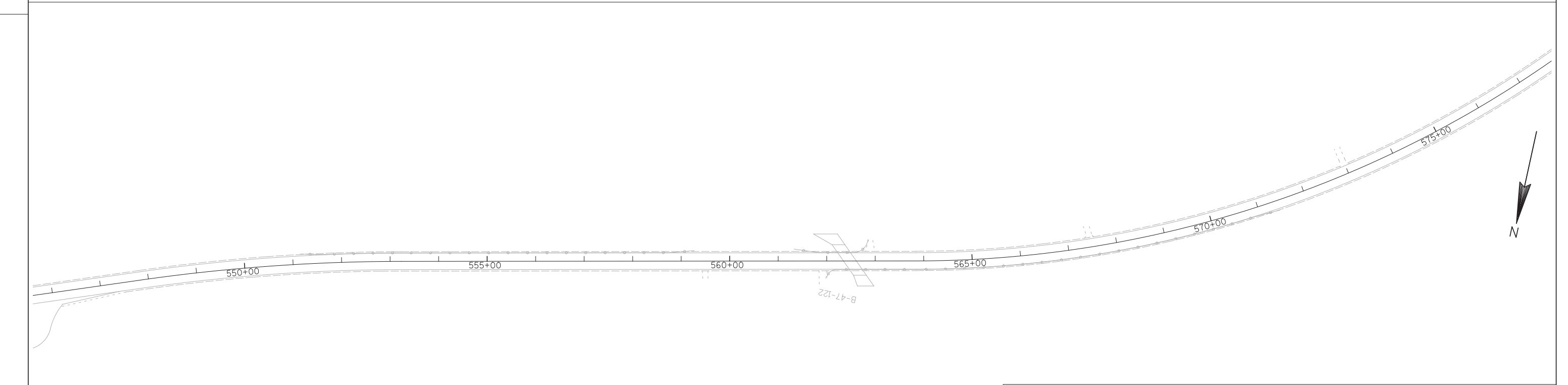
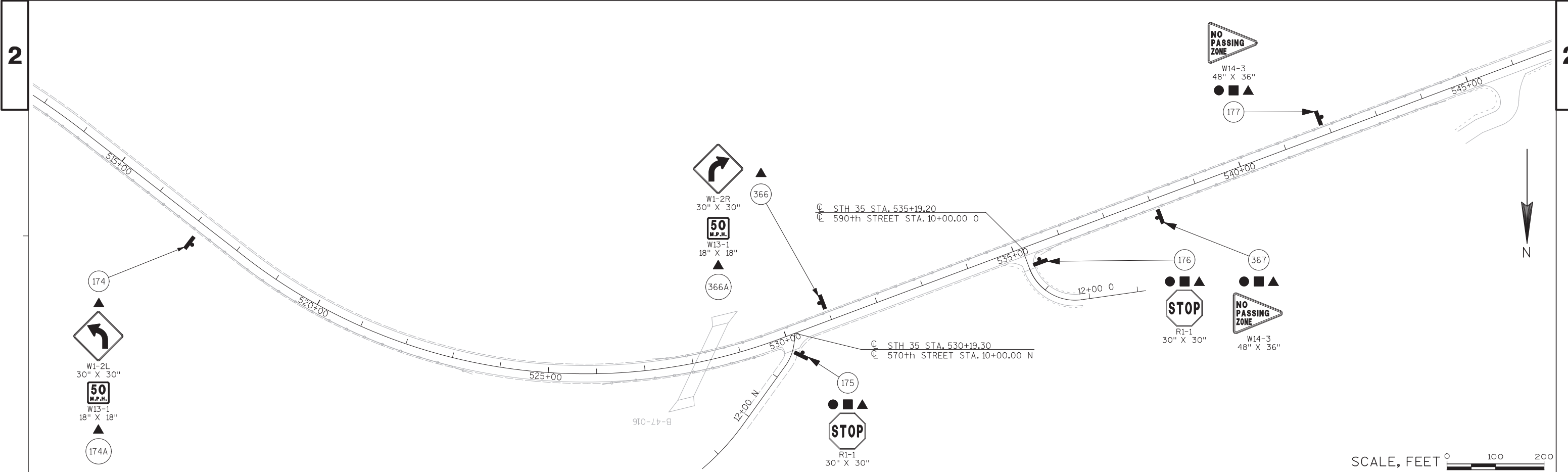
ET 42



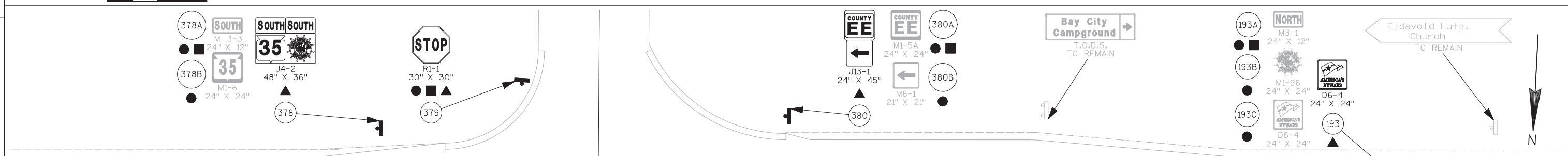
LEGEND	
EXISTING SIGN MOUNTED ON POST(S)	MOVING SIGNS TYPE II
PROPOSED SIGN MOUNTED ON POST(S)	REMOVING SIGNS TYPE II
DENOTES SIGN NUMBER	REMOVING SMALL SIGN SUPPORTS
	SIGNS REFLECTIVE TYPE II
	(X) INDICATES SIGN SIZE

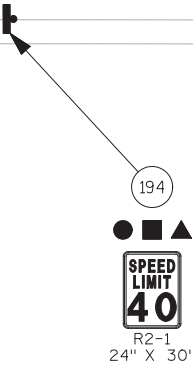
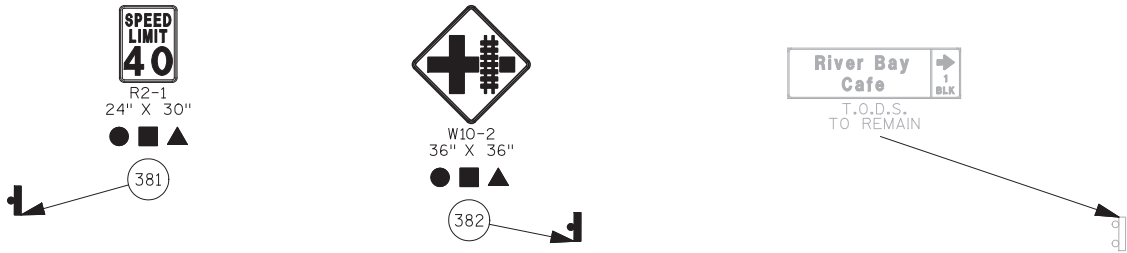


PROJECT NO:1721-01-61	HWY: STH 35	COUNTY: PIERCE	PERMANENT SIGNING	SHEET	E
-----------------------	-------------	----------------	-------------------	-------	---



LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	MOVING SIGNS TYPE II
	REMOVING SIGNS TYPE II
	REMOVING SMALL SIGN SUPPORTS
	SIGNS REFLECTIVE TYPE II
	(X) INDICATES SIGN SIZE





EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

DENOTES SIGN NUMBER

LEGEND

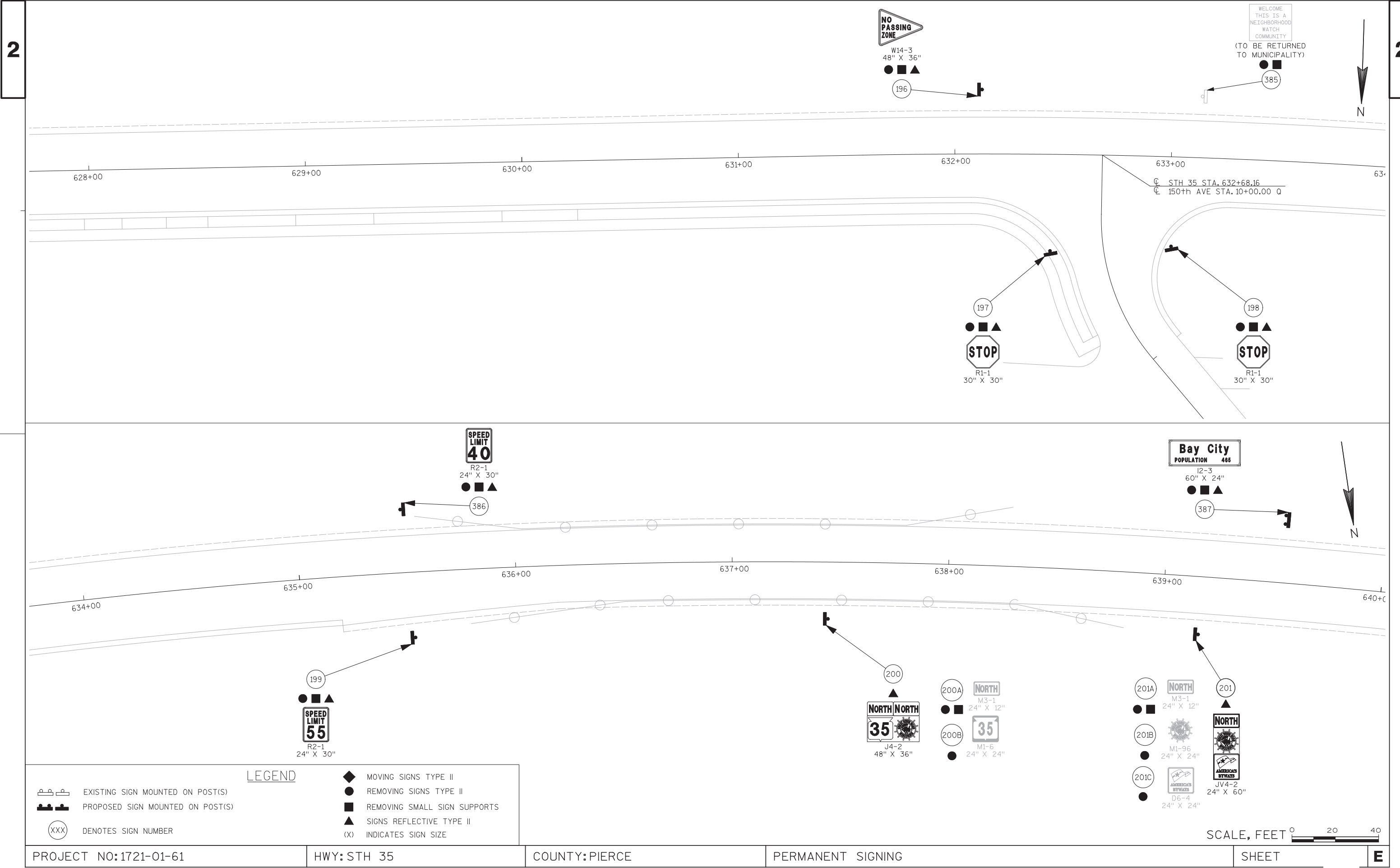
MOVING SIGNS TYPE II

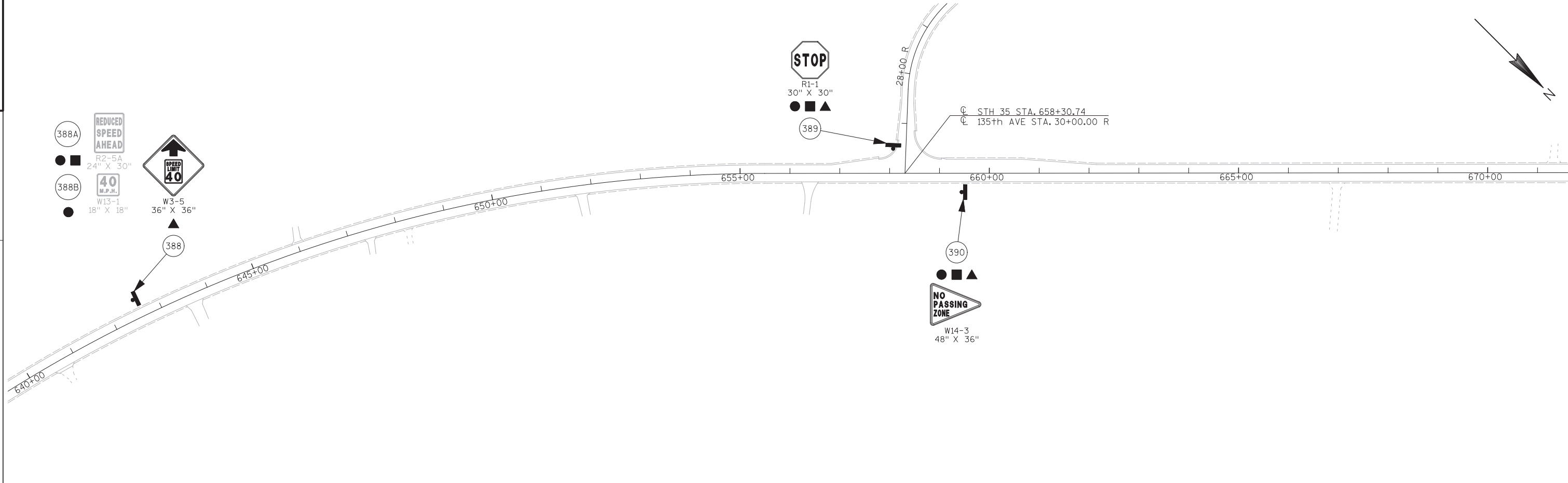
REMOVING SIGNS TYPE II

REMOVING SMALL SIGN SUPPORTS

SIGNS REFLECTIVE TYPE II

(X) INDICATES SIGN SIZE

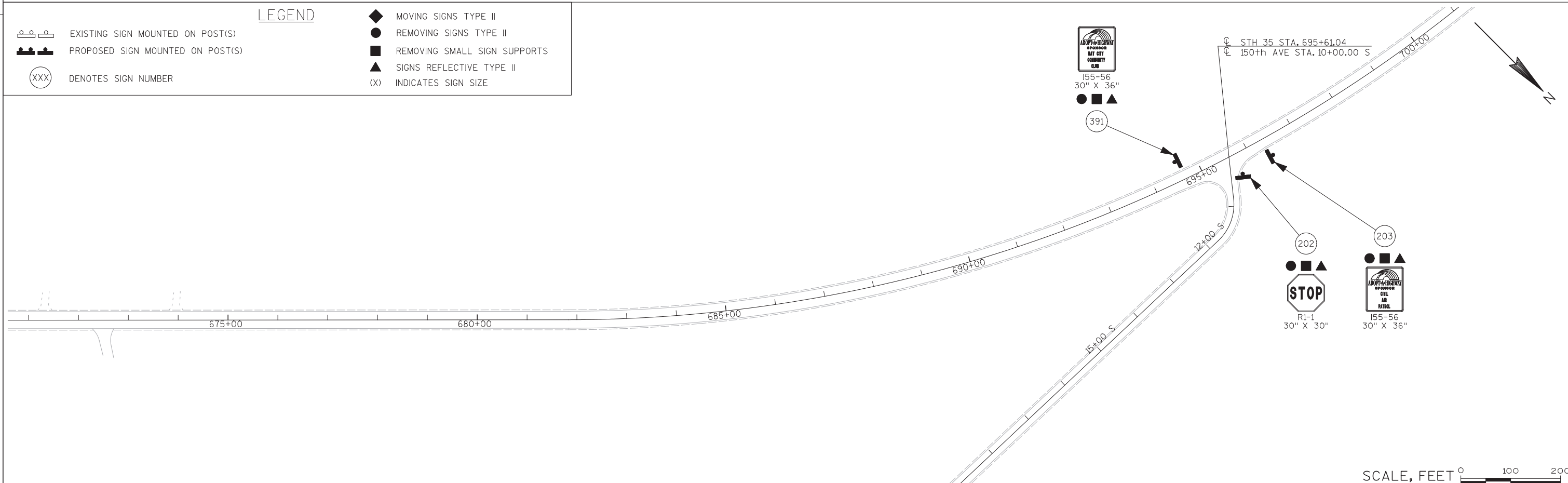


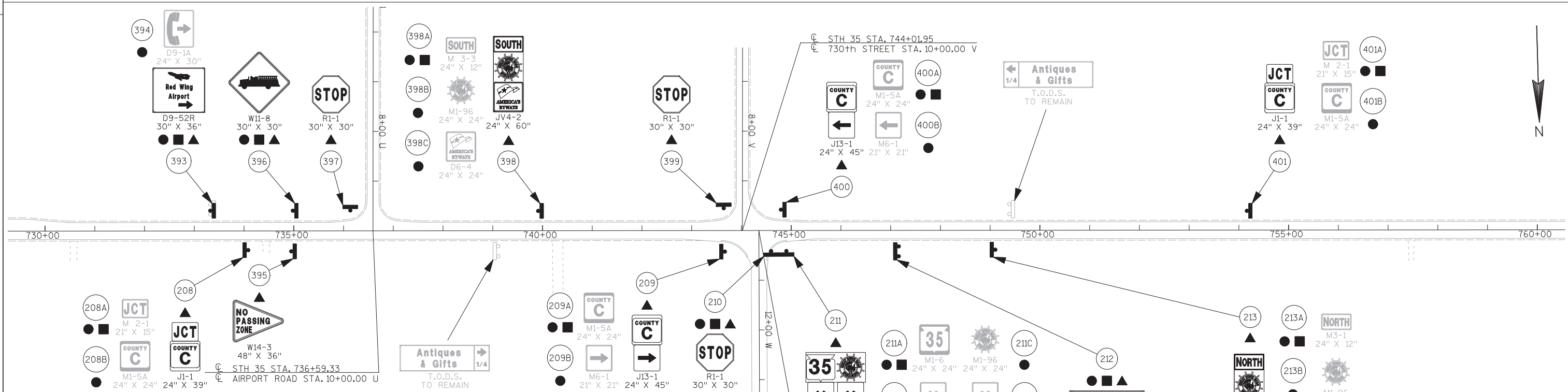
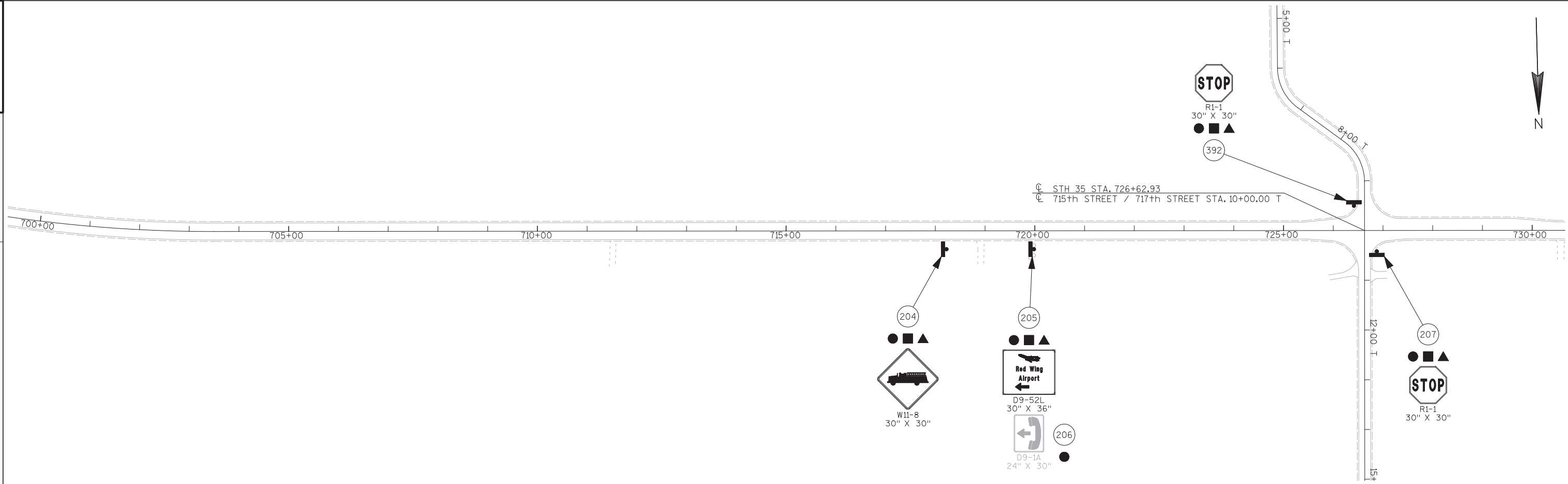


EXISTING SIGN MOUNTED ON POST(S)
 PROPOSED SIGN MOUNTED ON POST(S)
 DENOTES SIGN NUMBER

LEGEND

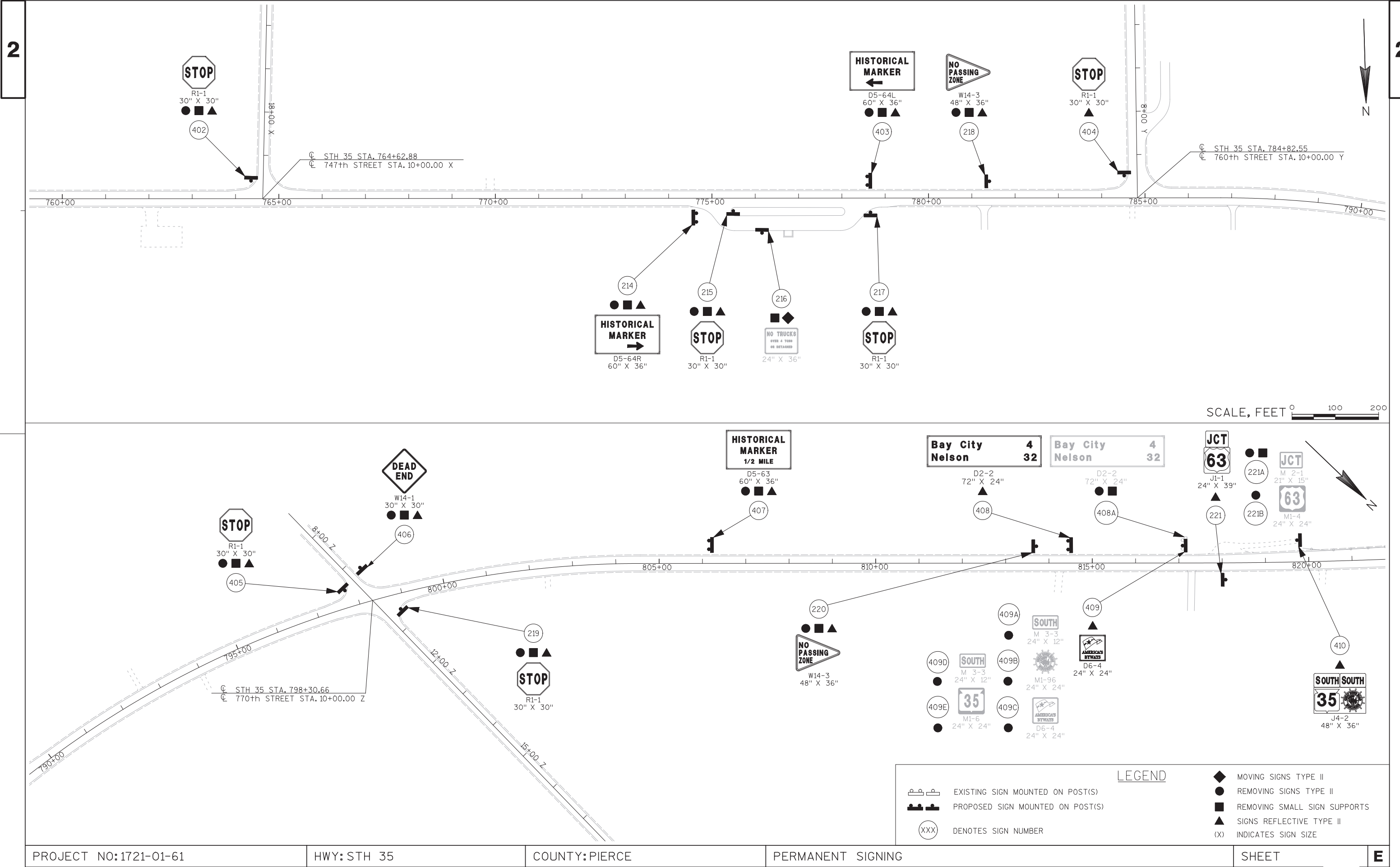
- MOVING SIGNS TYPE II
- REMOVING SIGNS TYPE II
- REMOVING SMALL SIGN SUPPORTS
- SIGNS REFLECTIVE TYPE II
- INDICATES SIGN SIZE

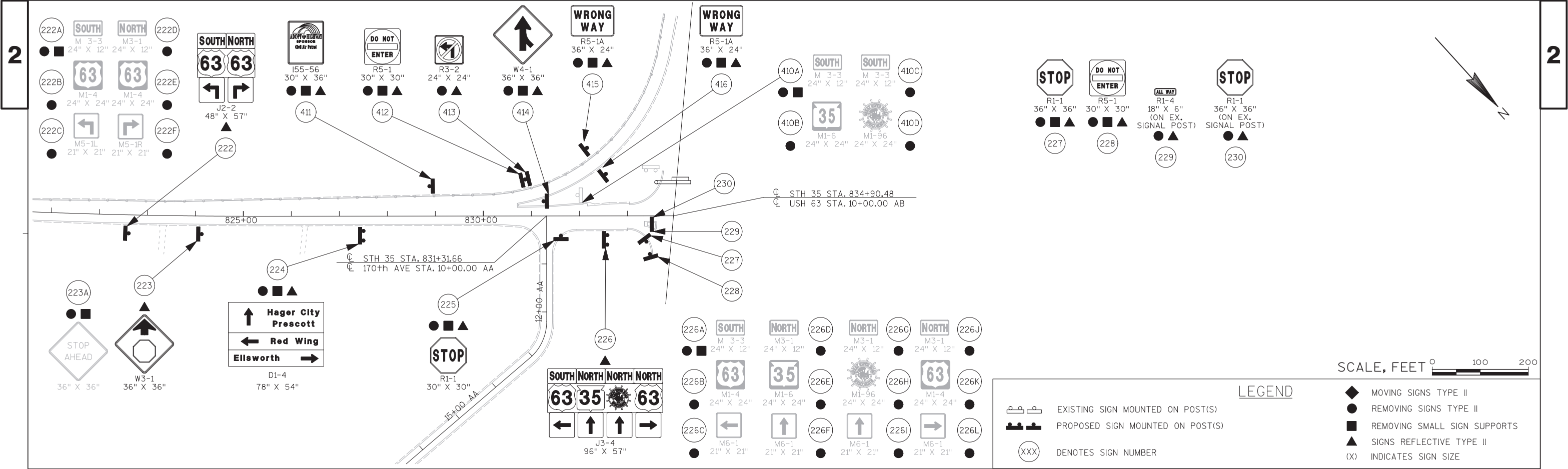




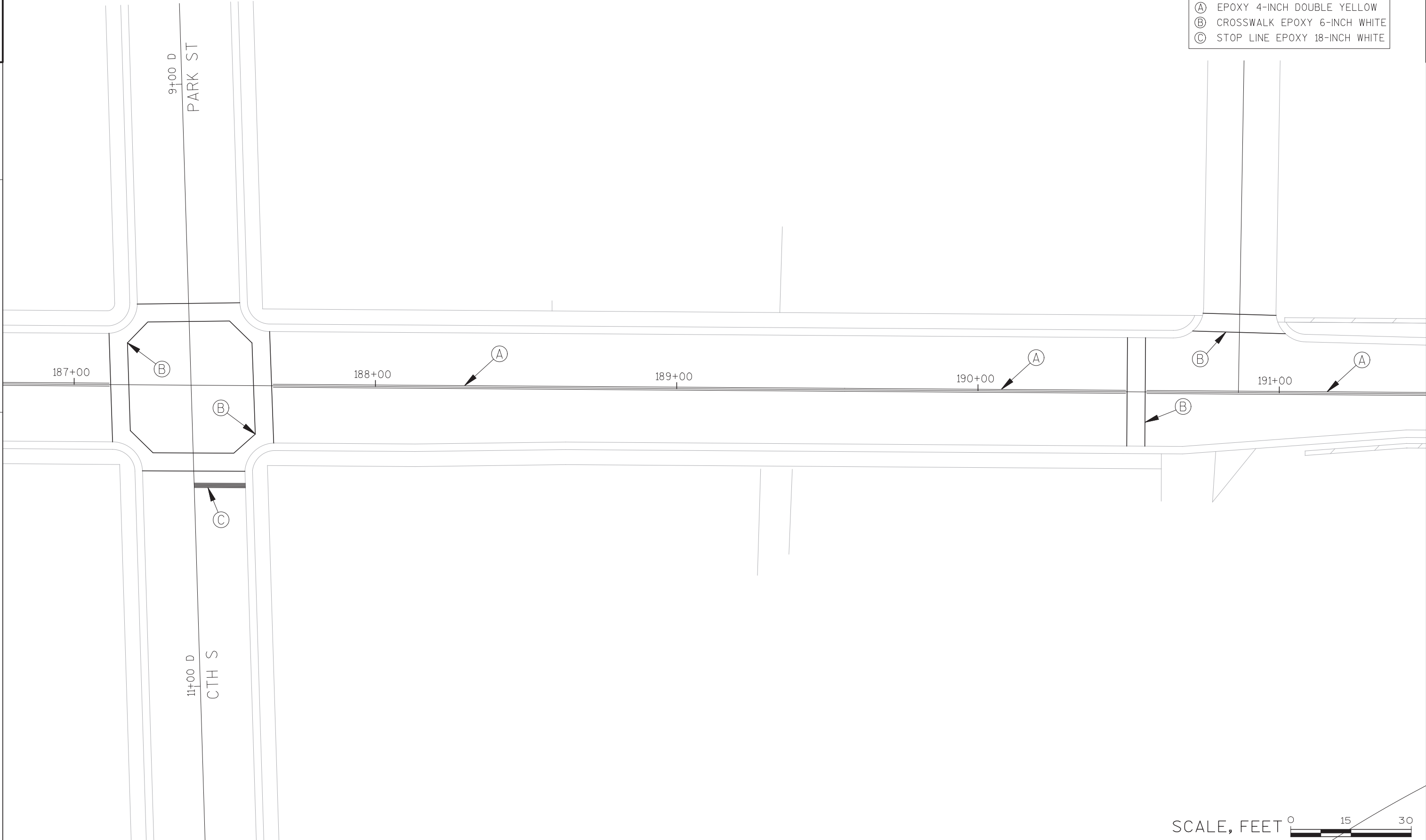
LEGEND

	EXISTING SIGN MOUNTED ON POST(S)		MOVING SIGNS TYPE II
	PROPOSED SIGN MOUNTED ON POST(S)		REMOVING SIGNS TYPE II
	DENOTES SIGN NUMBER		REMOVING SMALL SIGN SUPPORTS
			SIGNS REFLECTIVE TYPE II
			INDICATES SIGN SIZE



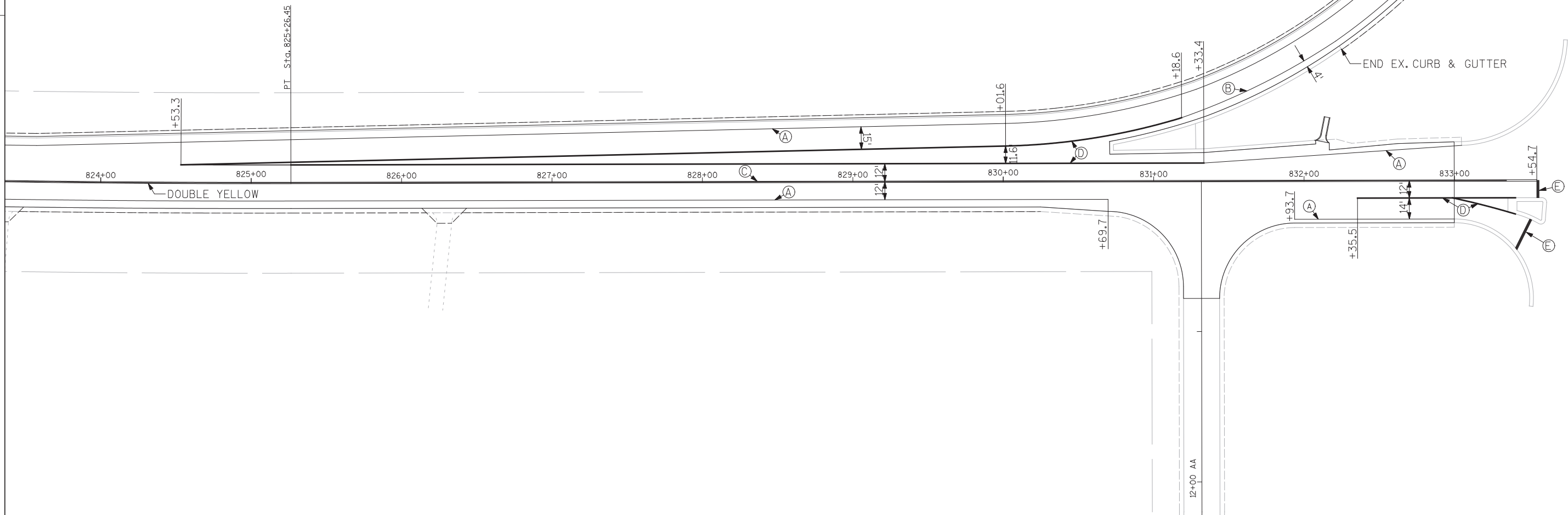


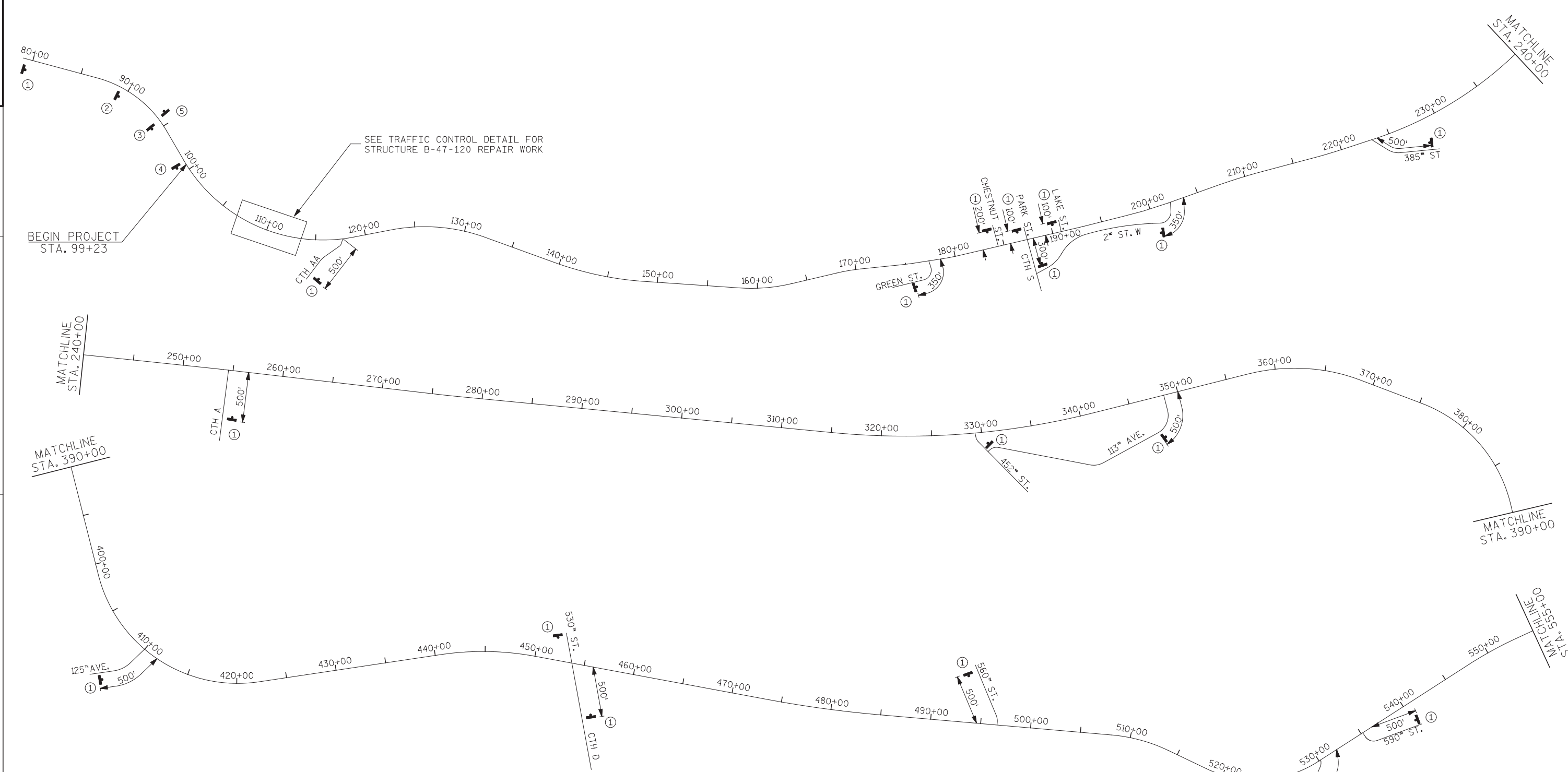
PAVEMENT MARKING LEGEND	
Ⓐ	EPOXY 4-INCH DOUBLE YELLOW
Ⓑ	CROSSWALK EPOXY 6-INCH WHITE
Ⓒ	STOP LINE EPOXY 18-INCH WHITE



PROJECT NO:1721-01-61	HWY: STH 35	COUNTY: PIERCE	PAVEMENT MARKING DETAIL	SHEET	E
-----------------------	-------------	----------------	-------------------------	-------	---

PAVEMENT MARKING LEGEND	
(A)	EPOXY 4-INCH WHITE
(B)	EPOXY 4-INCH YELLOW
(C)	EPOXY 4-INCH DOUBLE YELLOW
(D)	EPOXY 8-INCH WHITE
(E)	EPOXY 18-INCH WHITE





TRAFFIC CONTROL NOTES:

REFER TO SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR SIGN SPACING.

FOR TRAFFIC CONTROL SIGNING DURING MOVING OPERATIONS, SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

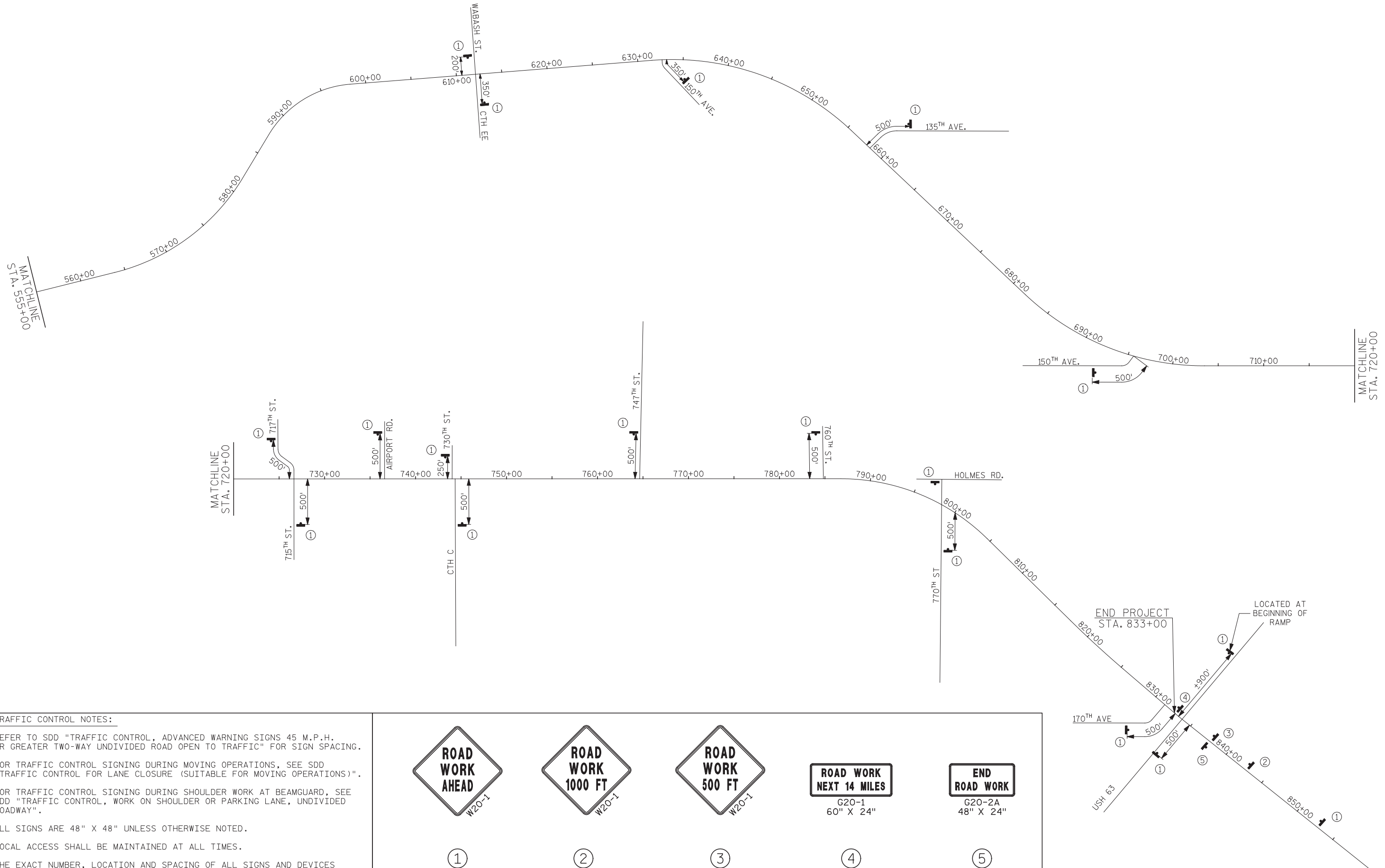
FOR TRAFFIC CONTROL SIGNING DURING SHOULDER WORK AT BEAMGUARD, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY".

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER

①	②	③	④	⑤



TRAFFIC CONTROL NOTES:

REFER TO SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR SIGN SPACING.

FOR TRAFFIC CONTROL SIGNING DURING MOVING OPERATIONS, SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

FOR TRAFFIC CONTROL SIGNING DURING SHOULDER WORK AT BEAMGUARD, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY".

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER



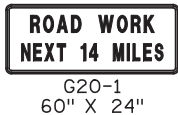
①



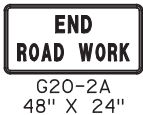
②



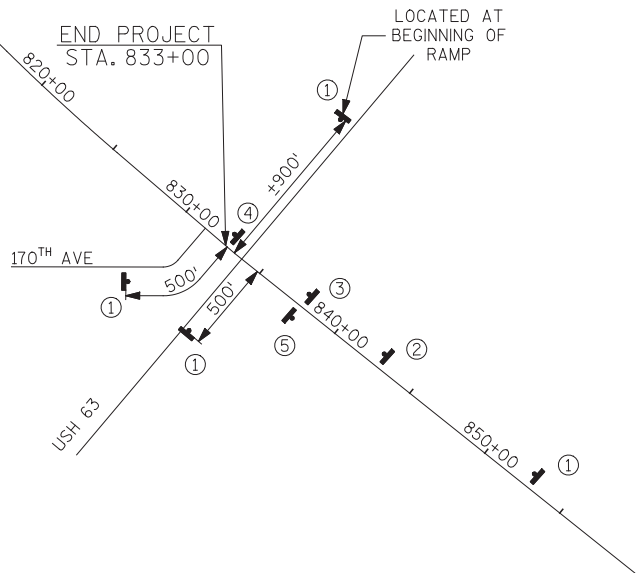
③



④



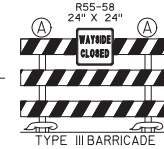
⑤



WIDTH ON SIGN SHOULD BE APPROX.
1 FOOT LESS THAN AVAILABLE WIDTH.



STA. 107+18
STH 35 CL



STA. 113+20
STH 35 CL



WIDTH ON SIGN SHOULD BE APPROX.
1 FOOT LESS THAN AVAILABLE WIDTH.

TRAFFIC CONTROL DRUMS REQ'D
EVERY 50' FOR 500' FOR AN ADVANCED
WARNING FROM STA. 107+18

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH REQ'D.
(DOUBLE YELLOW CENTERLINE)

TRAFFIC CONTROL DRUMS REQ'D
EVERY 50' FOR 500' FOR AN ADVANCED
WARNING FROM STA. 113+20

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH REQ'D.
(WHITE EDGELINE)

GENERAL NOTES:

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

NON-OPERATIONAL EQUIPMENT OR MATERIAL SHALL BE LOCATED BEHIND THE CONCRETE BARRIER TEMPORARY PRECAST.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE TO BE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

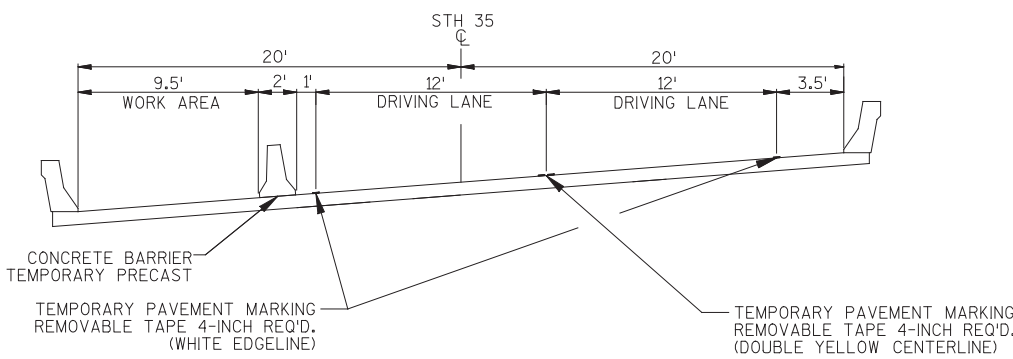
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE WAYSIDE CLOSURE WHEN B-47-120 STRUCTURE WORK IS COMPLETE

LEGEND

- TYPE III BARRICADE WITH SIGN
- TYPE III BARRICADE
- TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC



TYPICAL TRAFFIC CONTROL SECTION AT BRIDGE
(LOOKING NORTH)

NOTE: DRAWING NOT TO SCALE

SCALE, FEET 0 20 40

PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

TRAFFIC CONTROL - B-47-120

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAD 61

ET 42

3

DATE 25JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE					1721-01-61
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 110+00	LS	1.000	1.000
0020	204.0100	REMOVING PAVEMENT	SY	90.000	90.000
0030	204.0110	REMOVING ASPHALTIC SURFACE	SY	840.000	840.000
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,940.000	1,940.000
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	276,848.000	276,848.000
0060	204.0150	REMOVING CURB & GUTTER	LF	361.000	361.000
0070	204.0155	REMOVING CONCRETE SIDEWALK	SY	89.000	89.000
0080	204.0160	REMOVING LIP CURB	LF	1,536.000	1,536.000
0090	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	43.000	43.000
0100	205.0100	EXCAVATION COMMON	CY	51.000	51.000
0110	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-47-0120	LS	1.000	1.000
0120	206.6000.S	TEMPORARY SHORING	SF	760.000	760.000
0130	208.0100	BORROW	CY	227.000	227.000
0140	210.0100	BACKFILL STRUCTURE	CY	152.000	152.000
0150	213.0100	FINISHING ROADWAY (PROJECT) 01. 1721-01-61	EACH	1.000	1.000
0170	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	5,097.000	5,097.000
0180	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	210.000	210.000
0190	305.0500	SHAPING SHOULDERS	STA	1,279.000	1,279.000
0210	440.4410.S	INCENTIVE IRI RIDE	DOL	55,160.000	55,160.000
0220	455.0605	TACK COAT	GAL	7,188.000	7,188.000
0230	460.4110.S	REHEATING HMA LONGITUDINAL JOINTS	LF	72,793.000	72,793.000
0240	465.0105	ASPHALTIC SURFACE	TON	4,338.000	4,338.000
0250	465.0110	ASPHALTIC SURFACE PATCHING	TON	95.000	95.000
0260	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	90.000	90.000
0270	465.0310	ASPHALTIC CURB	LF	3,170.000	3,170.000
0280	465.0315	ASPHALTIC FLUMES	SY	104.000	104.000
0290	465.0450	ASPHALTIC INTERSECTION RUMBLE STRIP	SY	78.000	78.000
0300	502.0100	CONCRETE MASONRY BRIDGES	CY	19.000	19.000
0310	502.3200	PROTECTIVE SURFACE TREATMENT	SY	16.000	16.000
0320	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	92.000	92.000
0330	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	2,578.000	2,578.000
0340	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12.000	12.000
0350	520.7000	CLEANING CULVERT PIPES	EACH	35.000	35.000
0360	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	361.000	361.000
0370	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	158.000	158.000
0380	601.0600	CONCRETE CURB PEDESTRIAN	LF	148.000	148.000
0390	602.0405	CONCRETE SIDEWALK 4-INCH	SF	809.000	809.000
0400	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	72.000	72.000
0410	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	375.000	375.000
0420	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	375.000	375.000
0430	611.8110	ADJUSTING MANHOLE COVERS	EACH	20.000	20.000
0440	611.8120.S	COVER PLATES TEMPORARY	EACH	20.000	20.000
0450	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	87.000	87.000
0460	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	78.000	78.000
0470	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2.000	2.000

3

3

DATE 25JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE					1721-01-61
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0480	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	20.600	20.600
0490	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	2,525.000	2,525.000
0500	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	300.000	300.000
0510	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	4.000	4.000
0520	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	7.000	7.000
0530	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	35.000	35.000
0540	614.0515	GUARDRAIL STIFENED LHW	LF	2,300.000	2,300.000
0550	614.0920	SALVAGED RAIL	LF	37,654.000	37,654.000
0560	614.2300	MGS GUARDRAIL 3	LF	27,250.000	27,250.000
0570	614.2330	MGS GUARDRAIL 3 K	LF	6,750.000	6,750.000
0580	614.2500	MGS THRIE BEAM TRANSITION	LF	433.400	433.400
0590	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	66.000	66.000
0600	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	1.000	1.000
0610	615.0100	GUARD FENCE TIMBER RAIL	LF	272.000	272.000
0620	615.0200	CURBS TREATED TIMBER	EACH	44.000	44.000
0630	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1721-01-61	EACH	1.000	1.000
0650	619.1000	MOBILIZATION	EACH	0.800	0.800
0660	625.0500	SALVAGED TOPSOIL	SY	420.000	420.000
0670	627.0200	MULCHING	SY	420.000	420.000
0680	628.1504	SILT FENCE	LF	6,800.000	6,800.000
0690	628.1520	SILT FENCE MAINTENANCE	LF	6,800.000	6,800.000
0700	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5.000	5.000
0710	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0720	628.2002	EROSION MAT CLASS I TYPE A	SY	7,241.000	7,241.000
0730	628.7015	INLET PROTECTION TYPE C	EACH	30.000	30.000
0740	628.7504	TEMPORARY DITCH CHECKS	LF	256.000	256.000
0750	628.7555	CULVERT PIPE CHECKS	EACH	10.000	10.000
0760	629.0210	FERTILIZER TYPE B	CWT	26.900	26.900
0770	630.0130	SEEDING MIXTURE NO. 30	LB	769.200	769.200
0780	630.0200	SEEDING TEMPORARY	LB	1,154.400	1,154.400
0790	633.5200	MARKERS CULVERT END	EACH	136.000	136.000
0800	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	62.000	62.000
0810	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	120.000	120.000
0820	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	60.000	60.000
0830	634.0620	POSTS WOOD 4X6-INCH X 20-FT	EACH	2.000	2.000
0840	634.0801	POSTS TUBULAR STEEL 2X2-INCH X 1.5-FT	EACH	9.000	9.000
0850	634.0803	POSTS TUBULAR STEEL 2X2-INCH X 3-FT	EACH	9.000	9.000
0860	634.0812	POSTS TUBULAR STEEL 2X2-INCH X 12-FT	EACH	4.000	4.000
0870	634.0814	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	EACH	5.000	5.000
0880	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,748.990	1,748.990
0890	638.2102	MOVING SIGNS TYPE II	EACH	1.000	1.000
0900	638.2602	REMOVING SIGNS TYPE II	EACH	355.000	355.000
0910	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	241.000	241.000
0920	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0930	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1721-01-61	EACH	1.000	1.000
0950	643.0300	TRAFFIC CONTROL DRUMS	DAY	2,800.000	2,800.000
0960	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	105.000	105.000
0970	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	120.000	120.000
0980	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	150.000	150.000
0990	643.0900	TRAFFIC CONTROL SIGNS	DAY	5,453.000	5,453.000
1000	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	134,105.000	134,105.000

3

3

DATE 25JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE				1721-01-61	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
1010	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	2,458.000	2,458.000
1020	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	89,220.000	89,220.000
1030	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,806.000	1,806.000
1040	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	82.000	82.000
1050	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	1,332.000	1,332.000
1060	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	421.000	421.000
1070	647.0803	PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH	LF	60.000	60.000
1080	648.0100	LOCATING NO-PASSING ZONES	MI	13.900	13.900
1090	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	165,366.000	165,366.000
1100	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	2,408.000	2,408.000
1110	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	158.000	158.000
1120	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-47-0120	LS	1.000	1.000
1130	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	72,793.000	72,793.000
1140	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1721-01-61	LS	1.000	1.000
1160	690.0150	SAWING ASPHALT	LF	963.000	963.000
1170	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	500.000	500.000
1180	SPV.0060	SPECIAL 01. REMOVING CURBS TREATED TIMBER	EACH	44.000	44.000
1190	SPV.0060	SPECIAL 02. CLEANING DITCH	EACH	49.000	49.000
1200	SPV.0060	SPECIAL 03. ADJUSTING STRUCTURE COVERS	EACH	8.000	8.000
1210	SPV.0090	SPECIAL 01. REMOVING GUARD FENCE TIMBER RAIL	LF	272.000	272.000
1220	SPV.0090	SPECIAL 02. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	667.000	667.000
1230	SPV.0090	SPECIAL 03. PROFILE CURB CUT	LF	129.000	129.000
1240	SPV.0090	SPECIAL 04. MGS GUARDRAIL 3 SPECIAL	LF	250.000	250.000
1250	SPV.0105	SPECIAL 01. PREPARE FOUNDATION FOR ASPHALTIC PAVING SPECIAL (PROJECT) 01. 1721-01-61	LS	1.000	1.000
1260	SPV.0105	SPECIAL 02. MATERIAL TRANSFER VEHICLE	LS	1.000	1.000
1270	SPV.0105	SPECIAL 03. MILLING AND REMOVING TEMPORARY JOINT	LS	1.000	1.000
1290	SPV.0165	SPECIAL 01. CONCRETE SIDEWALK CURE AND SEAL TREATMENT	SF	809.000	809.000
1300	SPV.0170	SPECIAL 01. SHOULDER REPAIR	STA	41.000	41.000
1310	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE E-3 SPECIAL	TON	64,954.000	64,954.000

3

3

3

PAVEMENT REMOVAL

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING	REMOVING	REMOVING	REMOVING	REMARKS
					PAVEMENT	ASPHALTIC	ASPHALTIC	ASPHALTIC	
					204.0100	204.0110	204.0115	204.0120	
					SY	SY	SY	SY	
0010	820+61	-	820+86	RIGHT LANE	30	-	-	-	CONCRETE RUMBLE STRIP
0010	826+26	-	826+51	RIGHT LANE	30	-	-	-	CONCRETE RUMBLE STRIP
0010	830+06	-	830+31	RIGHT LANE	30	-	-	-	CONCRETE RUMBLE STRIP
0010	105+14			LEFT	-	10	-	-	ASPHALT FLUME
0010	105+70			LEFT	-	35	-	-	ASPHALT FLUME
0010	107+35			LEFT	-	10	-	-	ASPHALT FLUME
0010	108+34			LEFT	-	10	-	-	ASPHALT FLUME
0010	109+38			LEFT	-	10	-	-	ASPHALT FLUME
0010	111+14			LEFT	-	10	-	-	ASPHALT FLUME
0010	158+70			LEFT	-	10	-	-	ASPHALT FLUME
0010	331+66			LEFT	-	10	-	-	ASPHALT FLUME
0010	335+61			LEFT	-	10	-	-	ASPHALT FLUME
0010	337+11			LEFT	-	10	-	-	ASPHALT FLUME
0010	155+60			RIGHT	-	25	-	-	DRIVEWAY
0010	162+36			RIGHT	-	75	-	-	DRIVEWAY
0010	326+18			RIGHT	-	20	-	-	DRIVEWAY
0010	487+29			RIGHT	-	25	-	-	DRIVEWAY
0010	545+79			RIGHT	-	160	-	-	DRIVEWAY
0010	640+73			RIGHT	-	25	-	-	DRIVEWAY
0010	643+64			RIGHT	-	35	-	-	DRIVEWAY
0010	647+42			RIGHT	-	20	-	-	DRIVEWAY
0010	656+39			RIGHT	-	30	-	-	DRIVEWAY
0010	672+51			RIGHT	-	40	-	-	DRIVEWAY
0010	781+29			RIGHT	-	30	-	-	DRIVEWAY
0010	787+03			RIGHT	-	25	-	-	DRIVEWAY
0010	817+29			RIGHT	-	20	-	-	DRIVEWAY
0010	99+23	-	99+73	MAINLINE	-	-	220	-	BEGIN PROJECT
0010	109+00	-	109+55	MAINLINE	-	-	245	-	B-47-120
0010	110+69	-	111+27	MAINLINE	-	-	255	-	B-47-120
0010	246+34	-	246+84	MAINLINE	-	-	205	-	B-47-106
0010	250+19	-	250+69	MAINLINE	-	-	205	-	B-47-106
0010	592+51	-	593+01	MAINLINE	-	-	245	-	B-47-118
0010	594+36	-	594+91	MAINLINE	-	-	270	-	B-47-118
0010	832+50	-	833+00	MAINLINE	-	-	295	-	END PROJECT
0010	99+73	-	109+00	MAINLINE	-	-	-	4,120	
0010	111+27	-	118+84	MAINLINE	-	-	-	3,365	
0010	118+84	-	120+84	MAINLINE	-	-	-	820	TAPER WIDTH FROM 40' TO 34'
0010	120+84	-	167+23	MAINLINE	-	-	-	17,525	
0010	167+23	-	167+73	MAINLINE	-	-	-	170	MAIDEN ROCK
0010	167+73	-	174+81	MAINLINE	-	-	-	2,245	MAIDEN ROCK
0010	174+81	-	175+04	MAINLINE	-	-	-	65	MAIDEN ROCK
0010	175+04	-	205+33	MAINLINE	-	-	-	8,075	MAIDEN ROCK
0010	205+33	-	207+32	MAINLINE	-	-	-	620	
SUBTOTAL #1 =					90	655	1,940	37,005	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

PAVEMENT REMOVAL (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING PAVEMENT 204.0100 SY	REMOVING ASPHALTIC SURFACE 204.0110 SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115 SY	REMOVING ASPHALTIC SURFACE MILLING 204.0120 SY	REMARKS
0010	207+32	-	211+86	MAINLINE	-	-	-	1,440	TAPER WIDTH FROM 28' TO 29'
0010	211+86	-	223+82	MAINLINE	-	-	-	3,850	
0010	223+82	-	224+55	MAINLINE	-	-	-	245	
0010	224+55	-	224+94	MAINLINE	-	-	-	140	TAPER WIDTH FROM 30' TO 34'
0010	224+94	-	246+34	MAINLINE	-	-	-	8,085	
0010	250+69	-	592+51	MAINLINE	-	-	-	129,130	
0010	594+91	-	597+44	MAINLINE	-	-	-	955	
0010	597+44	-	634+88	MAINLINE	-	-	-	9,985	BAY CITY
0010	634+88	-	635+18	MAINLINE	-	-	-	100	BAY CITY
0010	635+18	-	832+50	MAINLINE	-	-	-	74,450	3 - 11' X 25' CONCRETE RUMBLE PADS
0010	117+72			RIGHT	-	-	-	310	CTH AA
0010	187+39			RIGHT	-	-	-	125	CTH S
0010	223+20			RIGHT	-	-	-	310	EAST RIVER ROAD (385TH STREET)
0010	254+55			RIGHT	-	-	-	540	CTH A
0010	329+36			RIGHT	-	-	-	130	452ND STREET
0010	348+58			RIGHT	-	-	-	170	113TH STREET
0010	409+99			RIGHT	-	-	-	190	PINEY LANE (125TH AVENUE)
0010	453+74			RIGHT	-	-	-	370	CTH D
0010	453+74			LEFT	-	-	-	250	PEPIN VIEW ROAD (530TH STREET)
0010	496+65			LEFT	-	-	-	200	560TH STREET
0010	530+19			RIGHT	-	70	-	-	570TH STREET
0010	535+19			RIGHT	-	115	-	-	590TH STREET
0010	658+31			LEFT	-	-	-	825	135TH STREET (INCLUDES R.T.L.)
0010	695+61			RIGHT	-	-	-	335	150TH AVENUE
0010	726+63			RIGHT	-	-	-	340	715TH STREET
0010	726+63			LEFT	-	-	-	620	717TH STREET (INCLUDES R.T.L.)
0010	736+59			LEFT	-	-	-	230	AIRPORT ROAD
0010	744+02			LEFT	-	-	-	340	730TH STREET
0010	744+35			RIGHT	-	-	-	455	CTH C
0010	764+63			LEFT	-	-	-	500	747TH STREET
0010	784+83			LEFT	-	-	-	675	760TH STREET (INCLUDES R.T.L.)
0010	798+31			RIGHT	-	-	-	360	HIAWATHA DRIVE (770TH STREET)
0010	798+31			LEFT	-	-	-	335	HOLMES ROAD (770TH STREET)
0010	817+47	-	832+17	LEFT	-	-	-	2,575	USH 63 RAMP
0010	830+25	-	832+50	RIGHT	-	-	-	435	170TH AVENUE (INCLUDES USH 63 R.T.L.)
0010	830+71	-	832+50	LEFT	-	-	-	75	LEFT SHOULDER
SUBTOTAL #2 =					0	185	0	239,075	
+									
SUBTOTAL #1 =					90	655	1,940	37,005	
PROJECT TOTALS =					90	840	1,940	276,080	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

CURB & GUTTER SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING LIP	ASPHALTIC	CONCRETE CURB &	CONCRETE CURB	REMARKS
					CURB	CURB	GUTTER 6-INCH	AND GUTTER CURE	
					204.0160	465.0310	SLOPED 36-INCH	& SEAL TREATMENT	
					LF	LF	TYPE D	SPV.0090.02	
					LF	LF	LF	LF	
0010	99+23	-	105+09	LT SHLDR	586	-	-	-	
0010	105+98	-	106+82	LT	113	-	-	-	WAYSIDE
0010	106+92	-	107+32	LT	38	-	-	-	WAYSIDE
0010	107+39	-	107+59	LT	41	-	-	-	WAYSIDE
0010	110+95	-	111+09	LT SHLDR	14	-	-	-	
0010	111+20	-	118+74	LT SHLDR	744	-	-	-	
0010	99+24	-	105+09	LT SHLDR	-	580	-	-	
0010	105+21	-	105+52	LT SHLDR	-	30	-	-	
0010	106+00	-	106+82	LT	-	110	-	-	WAYSIDE
0010	106+92	-	107+33	LT	-	40	-	-	WAYSIDE
0010	107+39	-	107+59	LT	-	45	-	-	WAYSIDE
0010	108+42	-	109+11	LT SHLDR	-	70	-	-	
0010	109+24	-	109+43	LT SHLDR	-	20	-	-	
0010	110+95	-	111+30	LT SHLDR	-	35	-	-	
0010	111+42	-	119+20	LT SHLDR	-	770	-	-	
0010	156+25	-	158+64	LT SHLDR	-	240	-	-	
0010	158+76	-	159+27	LT SHLDR	-	50	-	-	
0010	326+00	-	331+60	LT SHLDR	-	560	-	-	
0010	331+72	-	335+55	LT SHLDR	-	380	-	-	
0010	335+67	-	337+05	LT SHLDR	-	140	-	-	
0010	337+17	-	338+15	LT SHLDR	-	100	-	-	
0010	19+19 X	-	19+74 X	LT	-	-	84	84	747TH STREET R.T.L.
0010	19+27 X	-	19+77 X	RT	-	-	74	74	747TH STREET R.T.L.
PROJECT TOTALS =					1,536	3,170	158	158	

EXCAVATION COMMON

CATEGORY	STATION	TO	STATION	LOCATION	205.0100	REMARKS
					CY	
0010	762+92	-	768+00	LT	51	747TH STREET R.T.L.
PROJECT TOTALS =					51	

BORROW

CATEGORY	STATION	TO	STATION	LOCATION	208.0100	REMARKS
					CY	
0010	762+92	-	768+00	LT	227	747TH STREET R.T.L.
PROJECT TOTALS =					227	

* QUANTITY INCLUDES REMOVAL OF ASPHALT PAVEMENT AND BASE TO DEPTH REQUIRED.

3

MARKER POSTS SUMMARY

CATEGORY	STATION	LOCATION	REMOVING	MARKERS	REMARKS
			DELINEATORS AND MARKERS 204.0180 EACH	CULVERT END 633.5200 EACH	
0010	10+54 A	LT & RT	-	2	CTH AA
0010	119+45	LT & RT	-	2	
0010	124+10	LT & RT	1	2	
0010	130+40	LT & RT	-	2	
0010	133+25	LT & RT	1	2	
0010	137+40	LT & RT	1	2	
0010	142+00	LT & RT	2	2	
0010	149+45	LT & RT	1	2	
0010	157+20	LT & RT	-	2	
0010	159+40	LT & RT	2	2	385TH ST.
0010	165+30	LT & RT	1	2	
0010	201+30	LT & RT	-	2	
0010	10+65 G	LT & RT	-	2	CTH A
0010	224+50	LT & RT	-	2	
0010	10+99 H	LT & RT	2	2	
0010	266+70	LT & RT	1	2	
0010	276+60	LT & RT	1	2	
0010	285+30	LT & RT	1	2	
0010	298+60	LT & RT	-	2	
0010	309+15	LT & RT	-	2	
0010	318+00	LT & RT	-	2	
0010	324+50	LT & RT	-	2	113TH ST.
0010	347+50	LT & RT	-	2	
0010	10+36 J	LT & RT	-	2	
0010	349+85	LT & RT	1	2	
0010	363+30	LT & RT	-	2	
0010	375+50	LT & RT	-	2	
0010	384+25	LT & RT	1	2	
0010	390+80	LT & RT	1	2	
0010	403+10	LT & RT	2	2	
0010	409+15	LT & RT	1	2	CTH D LT CTH D RT
0010	422+30	LT & RT	1	2	
0010	427+20	LT & RT	1	2	
0010	435+30	LT & RT	-	2	CATTLE PASS
0010	452+55	LT & RT	2	2	
0010	9+44 L	LT & RT	-	2	
0010	10+65 L	LT & RT	1	2	
0010	464+30	LT & RT	2	2	
0010	465+00	LT & RT	1	2	
0010	475+20	LT & RT	1	2	
0010	484+40	LT & RT	-	2	
0010	488+60	LT & RT	-	2	
0010	500+00	LT & RT	-	2	
0010	505+50	LT & RT	-	2	
0010	512+40	LT & RT	-	2	
0010	514+50	LT & RT	-	2	
SUBTOTAL #1 =			29	92	

MARKER POSTS SUMMARY (CONTINUED)

CATEGORY	STATION	LOCATION	REMOVING	MARKERS	REMARKS
			DELINEATORS AND MARKERS 204.0180 EACH	CULVERT END 633.5200 EACH	
0010	520+80	LT & RT	1	2	
0010	534+75	LT & RT	-	2	
0010	537+20	LT & RT	-	2	
0010	538+20	LT & RT	-	2	150TH AVE.
0010	544+10	LT & RT	-	2	
0010	555+10	LT & RT	-	2	
0010	569+30	LT & RT	2	2	135TH AVE.
0010	572+90	LT & RT	-	2	
0010	10+73 Q	LT & RT	2	2	
0010	648+40	LT & RT	1	2	717TH AVE. AIRPORT RD.
0010	29+54 R	LT & RT	-	2	
0010	662+30	LT & RT	2	2	
0010	669+70	LT & RT	2	2	CTH C 770TH ST.
0010	9+49 T	LT & RT	-	2	
0010	9+60 U	LT & RT	-	2	
0010	743+75	LT & RT	-	2	PRAIRIE RD.
0010	10+85 W	LT & RT	2	2	
0010	10+51 Z	LT & RT	1	2	
0010	805+50	LT & RT	-	2	
0010	814+60	LT & RT	-	2	
0010	10+47 AA	LT & RT	1	2	
0010	RAMP	LT & RT	-	2	
SUBTOTAL #2 =			14	44	
+					
SUBTOTAL #1 =			29	92	
PROJECT TOTALS =			43	136	
FINISHING ROADWAY (PROJECT) 01. 1721-01-61					
CATEGORY	STATION	TO	STATION	213.0100	REMARKS
				LOCATION EACH	
0010	99+23	-	833+00	PROJECT 1	
PROJECT TOTALS =				1	

3

3

BASE AGGREGATE DENSE 3/4-INCH							BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)						
305.0110							305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS	CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	98+76	-	100+00	RT SHOULDER	10	MGS E.A.T.	0010	487+45	-	497+50	RT SHOULDER	28	
0010	100+00	-	109+28	RT SHOULDER	34	MGS GUARDRAIL 3	0010	498+31	-	499+09	RT SHOULDER	16	MGS E.A.T.
0010	110+84	-	115+43	RT SHOULDER	17	MGS GUARDRAIL 3	0010	499+09	-	529+29	RT SHOULDER	112	MGS GUARDRAIL 3
0010	115+43	-	116+95	RT SHOULDER	25	MGS E.A.T.	0010	529+29	-	529+83	RT SHOULDER	11	MGS E.A.T.
0010	117+96	-	119+51	RT SHOULDER	1	1' AGG. SHOULDER	0010	530+54	-	534+72	RT SHOULDER	12	
0010	119+51	-	120+84	RT SHOULDER	2	TRANSITION FROM 1' TO 3' AGG. SHLDR	0010	535+41	-	536+00	RT SHOULDER	10	MGS E.A.T.
0010	120+84	-	155+44	RT SHOULDER	96		0010	536+00	-	544+56	RT SHOULDER	32	MGS GUARDRAIL 3
0010	155+77	-	156+35	RT SHOULDER	2		0010	544+56	-	545+37	RT SHOULDER	15	MGS E.A.T.
0010	156+35	-	157+75	RT SHOULDER	16	MGS E.A.T.	0010	546+13	-	559+95	RT SHOULDER	38	
0010	157+75	-	161+41	RT SHOULDER	14	MGS GUARDRAIL 3	0010	559+95	-	561+35	RT SHOULDER	24	MGS E.A.T.
0010	161+41	-	162+11	RT SHOULDER	8	MGS E.A.T.	0010	561+35	-	570+86	RT SHOULDER	35	MGS GUARDRAIL 3
0010	162+63	-	167+73	RT SHOULDER	14		0010	570+86	-	572+25	RT SHOULDER	23	MGS E.A.T.
0010	223+77	-	224+98	RT SHOULDER	5	S.P.B.G CLASS A	0010	572+25	-	590+38	RT SHOULDER	50	
0010	226+04	-	244+78	RT SHOULDER	52		0010	590+38	-	592+41	RT SHOULDER	40	MGS E.A.T.
0010	244+78	-	246+18	RT SHOULDER	23	MGS E.A.T.	0010	592+41	-	592+96	RT SHOULDER	2	MGS GUARDRAIL 3
0010	246+18	-	246+71	RT SHOULDER	2	MGS GUARDRAIL 3	0010	594+49	-	595+03	RT SHOULDER	2	MGS GUARDRAIL 3
0010	250+33	-	250+85	RT SHOULDER	2	MGS GUARDRAIL 3	0010	595+03	-	596+36	RT SHOULDER	38	MGS E.A.T.
0010	250+85	-	252+25	RT SHOULDER	23	MGS E.A.T.	0010	596+36	-	597+44	RT SHOULDER	3	
0010	252+25	-	253+78	RT SHOULDER	4		0010	635+19	-	638+71	RT SHOULDER	13	MGS GUARDRAIL 3
0010	255+09	-	283+55	RT SHOULDER	79		0010	638+71	-	640+12	RT SHOULDER	22	MGS E.A.T.
0010	283+55	-	284+50	RT SHOULDER	18	S.P.B.G. E.A.T.	0010	640+12	-	640+54	RT SHOULDER	1	
0010	284+50	-	285+54	RT SHOULDER	4	S.P.B.G. CLASS A	0010	640+92	-	643+44	RT SHOULDER	7	
0010	286+66	-	296+14	RT SHOULDER	26		0010	643+85	-	647+28	RT SHOULDER	10	
0010	296+14	-	297+54	RT SHOULDER	22	MGS E.A.T.	0010	647+56	-	656+20	RT SHOULDER	24	
0010	297+54	-	298+98	RT SHOULDER	3	MGS GUARDRAIL 3K	0010	656+58	-	672+29	RT SHOULDER	44	
0010	298+98	-	300+38	RT SHOULDER	22	MGS E.A.T.	0010	672+73	-	694+84	RT SHOULDER	61	
0010	300+38	-	328+95	RT SHOULDER	79		0010	696+06	-	725+99	RT SHOULDER	83	
0010	329+78	-	332+89	RT SHOULDER	9		0010	727+07	-	743+23	RT SHOULDER	45	
0010	332+89	-	333+63	RT SHOULDER	10	S.P.B.G. E.A.T.	0010	745+16	-	774+58	RT SHOULDER	82	
0010	333+63	-	348+19	RT SHOULDER	54	S.P.B.G. CLASS A	0010	779+12	-	781+12	RT SHOULDER	6	
0010	348+95	-	360+76	RT SHOULDER	33		0010	781+46	-	786+89	RT SHOULDER	15	
0010	360+76	-	362+18	RT SHOULDER	22	MGS E.A.T.	0010	787+18	-	797+92	RT SHOULDER	30	
0010	362+18	-	366+41	RT SHOULDER	16	MGS GUARDRAIL 3	0010	799+11	-	817+14	RT SHOULDER	50	
0010	366+41	-	367+16	RT SHOULDER	12	MGS E.A.T.	0010	817+44	-	830+25	RT SHOULDER	36	
0010	367+16	-	401+46	RT SHOULDER	95		0010	99+17	-	105+13	LT SHOULDER	11	GUARDRAIL STIFFENED LHW
0010	401+46	-	402+25	RT SHOULDER	9	S.P.B.G. E.A.T.	0010	105+17	-	105+62	LT SHOULDER	1	GUARDRAIL STIFFENED LHW
0010	402+25	-	409+59	RT SHOULDER	27	S.P.B.G. CLASS A	0010	105+71	-	106+13	LT SHOULDER	2	ENTRANCE TO REST AREA, S.P.B.G. SRT
0010	410+48	-	416+56	RT SHOULDER	17		0010	107+46	-	108+34	LT SHOULDER	4	ENTRANCE TO REST AREA, S.P.B.G. SRT
0010	416+56	-	417+94	RT SHOULDER	25	MGS E.A.T.	0010	108+38	-	109+15	LT SHOULDER	3	S.P.B.G. CLASS A
0010	417+94	-	427+57	RT SHOULDER	36	MGS GUARDRAIL 3	0010	109+20	-	109+43	LT SHOULDER	1	S.P.B.G. CLASS A
0010	427+57	-	428+69	RT SHOULDER	22	MGS E.A.T.	0010	110+95	-	111+33	LT SHOULDER	1	MGS GUARDRAIL 3K
0010	429+08	-	432+60	RT SHOULDER	10		0010	111+39	-	119+45	LT SHOULDER	15	MGS GUARDRAIL 3K
0010	432+60	-	434+00	RT SHOULDER	15	MGS E.A.T.	0010	119+45	-	120+96	LT SHOULDER	28	MGS E.A.T.
0010	434+00	-	440+69	RT SHOULDER	25	MGS GUARDRAIL 3	0010	120+96	-	122+33	LT SHOULDER	21	MGS E.A.T.
0010	440+69	-	442+10	RT SHOULDER	22	MGS E.A.T.	0010	122+33	-	158+67	LT SHOULDER	135	MGS GUARDRAIL 3
0010	442+10	-	453+08	RT SHOULDER	31		0010	158+73	-	161+76	LT SHOULDER	11	MGS GUARDRAIL 3
0010	454+49	-	481+06	RT SHOULDER	74		0010	161+76	-	162+28	LT SHOULDER	10	MGS E.A.T.
0010	481+31	-	482+67	RT SHOULDER	23	MGS E.A.T.	0010	162+60	-	163+12	LT SHOULDER	10	MGS E.A.T.
0010	482+67	-	485+35	RT SHOULDER	10	MGS GUARDRAIL 3	0010	163+12	-	168+16	LT SHOULDER	19	MGS GUARDRAIL 3
0010	485+35	-	486+75	RT SHOULDER	22	MGS E.A.T.	0010	168+19	-	178+74	LT SHOULDER	34	3.5' AGG. SHLDR BEHIND CURB & GUTTER
0010	486+75	-	487+13	RT SHOULDER	1								
SUBTOTAL #1 =					1,223		SUBTOTAL #2 =					1,326	

3

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO: 69

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)

305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	178+74	-	181+33	LT SHOULDER	10	MGS GUARDRAIL 3
0010	181+33	-	181+70	LT SHOULDER	1	TRANSITION FROM 4' TO 2' AGG. SHLDR
0010	180+70	-	183+14	LT SHOULDER	5	2' AGG. SHLDR, MGS GUARDRAIL 3
0010	183+27	-	184+23	LT SHOULDER	2	2' AGG. SHLDR, MGS GUARDRAIL 3
0010	205+80	-	208+14	LT SHOULDER	7	
0010	208+14	-	209+09	LT SHOULDER	19	MGS E.A.T.
0010	209+09	-	225+28	LT SHOULDER	30	MGS GUARDRAIL 3K
0010	225+28	-	226+69	LT SHOULDER	23	MGS E.A.T.
0010	226+69	-	245+44	LT SHOULDER	52	
0010	245+44	-	246+18	LT SHOULDER	13	MGS E.A.T.
0010	246+18	-	246+71	LT SHOULDER	2	MGS GUARDRAIL 3
0010	250+33	-	250+85	LT SHOULDER	2	MGS GUARDRAIL 3
0010	250+85	-	251+59	LT SHOULDER	13	MGS E.A.T.
0010	251+59	-	266+04	LT SHOULDER	40	
0010	266+04	-	267+44	LT SHOULDER	23	MGS E.A.T.
0010	267+44	-	297+76	LT SHOULDER	56	MGS GUARDRAIL 3K
0010	297+76	-	298+28	LT SHOULDER	8	MGS E.A.T.
0010	298+65	-	299+24	LT SHOULDER	8	MGS E.A.T.
0010	299+24	-	311+05	LT SHOULDER	22	MGS GUARDRAIL 3K
0010	311+05	-	311+65	LT SHOULDER	12	MGS E.A.T.
0010	312+02	-	315+40	LT SHOULDER	9	
0010	315+40	-	316+81	LT SHOULDER	23	MGS E.A.T.
0010	316+81	-	331+64	LT SHOULDER	55	MGS GUARDRAIL 3
0010	331+68	-	335+59	LT SHOULDER	14	MGS GUARDRAIL 3
0010	335+63	-	337+09	LT SHOULDER	5	MGS GUARDRAIL 3
0010	337+13	-	350+68	LT SHOULDER	50	MGS GUARDRAIL 3
0010	350+68	-	351+93	LT SHOULDER	22	MGS E.A.T.
0010	356+75	-	357+10	LT SHOULDER	1	
0010	357+10	-	358+49	LT SHOULDER	21	MGS E.A.T.
0010	358+49	-	366+09	LT SHOULDER	28	MGS GUARDRAIL 3
0010	366+09	-	366+82	LT SHOULDER	12	MGS E.A.T.
0010	366+82	-	368+61	LT SHOULDER	5	
0010	370+03	-	370+49	LT SHOULDER	1	
0010	370+49	-	371+89	LT SHOULDER	22	MGS E.A.T.
0010	371+89	-	379+40	LT SHOULDER	28	MGS GUARDRAIL 3
0010	379+40	-	379+91	LT SHOULDER	10	MGS E.A.T.
0010	380+19	-	380+65	LT SHOULDER	10	MGS E.A.T.
0010	380+65	-	391+95	LT SHOULDER	42	MGS GUARDRAIL 3
0010	391+95	-	393+35	LT SHOULDER	23	MGS E.A.T.
0010	393+35	-	395+72	LT SHOULDER	7	
0010	395+72	-	397+12	LT SHOULDER	22	MGS E.A.T.
0010	397+12	-	403+84	LT SHOULDER	25	MGS GUARDRAIL 3
0010	403+84	-	404+37	LT SHOULDER	24	MGS E.A.T.
0010	404+68	-	431+65	LT SHOULDER	75	
0010	431+65	-	433+05	LT SHOULDER	19	MGS E.A.T.
0010	433+05	-	437+61	LT SHOULDER	17	MGS GUARDRAIL 3
0010	437+61	-	439+01	LT SHOULDER	22	MGS E.A.T.
0010	439+01	-	453+10	LT SHOULDER	39	
0010	454+07	-	482+18	LT SHOULDER	78	
0010	482+18	-	483+58	LT SHOULDER	22	MGS E.A.T.
0010	483+58	-	495+65	LT SHOULDER	45	MGS GUARDRAIL 3
SUBTOTAL #3 =					1,124	

BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)

305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	495+65	-	496+32	LT SHOULDER	10	MGS E.A.T.
0010	496+99	-	497+68	LT SHOULDER	10	MGS E.A.T.
0010	497+68	-	499+92	LT SHOULDER	8	MGS GUARDRAIL 3
0010	499+91	-	501+32	LT SHOULDER	14	MGS E.A.T.
0010	501+32	-	525+20	LT SHOULDER	66	
0010	525+20	-	526+63	LT SHOULDER	23	MGS E.A.T.
0010	526+63	-	546+86	LT SHOULDER	75	MGS GUARDRAIL 3
0010	546+86	-	548+31	LT SHOULDER	23	MGS E.A.T.
0010	548+31	-	549+03	LT SHOULDER	2	
0010	549+03	-	550+43	LT SHOULDER	23	MGS E.A.T.
0010	550+43	-	563+60	LT SHOULDER	49	MGS GUARDRAIL 3
0010	563+60	-	565+01	LT SHOULDER	23	MGS E.A.T.
0010	565+01	-	591+40	LT SHOULDER	73	
0010	591+40	-	592+33	LT SHOULDER	22	MGS E.A.T.
0010	592+33	-	592+86	LT SHOULDER	2	MGS GUARDRAIL 3
0010	594+43	-	594+96	LT SHOULDER	2	MGS GUARDRAIL 3
0010	594+96	-	596+33	LT SHOULDER	40	MGS E.A.T.
0010	596+33	-	597+44	LT SHOULDER	3	
0010	634+52	-	635+91	LT SHOULDER	23	MGS E.A.T.
0010	635+91	-	638+08	LT SHOULDER	8	MGS GUARDRAIL 3
0010	638+08	-	638+82	LT SHOULDER	16	MGS E.A.T.
0010	638+82	-	657+78	LT SHOULDER	53	
0010	659+04	-	726+11	LT SHOULDER	186	
0010	727+35	-	736+15	LT SHOULDER	24	
0010	737+06	-	743+57	LT SHOULDER	18	
0010	744+66	-	763+39	LT SHOULDER	52	
0010	763+32	-	764+00	LT SHOULDER	3	747TH STREET R.T.L.
0010	765+35	-	767+22	LT SHOULDER	19	747TH STREET R.T.L.
0010	767+44	-	784+29	LT SHOULDER	47	
0010	785+61	-	797+57	LT SHOULDER	33	
0010	798+64	-	817+67	LT SHOULDER	53	
0010	818+54	-	819+11	LT SHOULDER	13	S.P.B.G. E.A.T.
0010	819+11	-	833+35	LT SHOULDER	28	RAMP SHLDR, GUARDRAIL STIFFENED LHW
0010	RAMP			LT SHOULDER	2	GUARDRAIL STIFFENED LHW
0010	RAMP			RT SHOULDER	10	
0010	10+69 G	-	11+24 G	LT SHOULDER	1	S.P.B.G. SRT
0010	10+15 I	-	10+50 I	RT SHOULDER	1	
0010	10+25 I	-	10+50 I	LT SHOULDER	1	
0010	10+22 J	-	11+05 J	RT SHOULDER	1	S.P.B.G. SRT
0010	10+14 K	-	10+60K	LT SHOULDER	2	
0010	10+25 K	-	10+84 K	RT SHOULDER	1	S.P.B.G. SRT
0010	9+31 L	-	9+56 L	LT SHOULDER	1	
0010	10+64 L	-	10+78 L	RT SHOULDER	1	
0010	9+36 M	-	9+75 M	LT SHOULDER	1	
0010	9+36 M	-	9+75 M	RT SHOULDER	1	
0010	10+20 O	-	10+47 O	RT SHOULDER	3	
0010	10+25 O	-	10+47 O	LT SHOULDER	1	
0010	10+08 S	-	10+83 S	LT SHOULDER	3	
0010	10+49 S	-	10+83 S	RT SHOULDER	2	
0010	9+16 T	-	9+73 T	RT SHOULDER	2	
0010	9+16 T	-	9+73 T	LT SHOULDER	2	
SUBTOTAL #4 =					1,079	

3

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO: 70

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)

305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	10+23	T	-	10+80	T	RT SHOULDER
0010	10+24	T	-	10+80	T	LT SHOULDER
0010	9+40	U	-	9+76	U	RT SHOULDER
0010	9+40	U	-	9+77	U	LT SHOULDER
0010	9+20	V	-	9+76	V	RT SHOULDER
0010	9+20	V	-	9+76	V	LT SHOULDER
0010	18+59	X	-	19+27	X	RT SHOULDER
0010	18+59	X	-	19+19	X	LT SHOULDER
0010	9+19	Y	-	9+76	Y	RT SHOULDER
0010	9+19	Y	-	9+76	Y	LT SHOULDER
0010	9+14	Z	-	9+45	Z	RT SHOULDER
0010	9+14	Z	-	9+95	Z	LT SHOULDER
0010	10+03	Z	-	10+90	Z	RT SHOULDER
0010	10+60	Z	-	10+90	Z	LT SHOULDER
0010	157+21			RIGHT	5	DRIVEWAY
0010	162+46			LEFT	5	DRIVEWAY
0010	206+33			LEFT	10	DRIVEWAY
0010	225+24			RIGHT	5	DRIVEWAY
0010	229+05			RIGHT	5	DRIVEWAY
0010	234+29			LEFT	5	DRIVEWAY
0010	236+26			RIGHT	5	DRIVEWAY
0010	271+96			RIGHT	5	DRIVEWAY
0010	285+99			RIGHT	10	DRIVEWAY
0010	298+46			LEFT	5	DRIVEWAY
0010	301+47			RIGHT	5	DRIVEWAY
0010	311+83			LEFT	5	DRIVEWAY
0010	328+72			RIGHT	5	DRIVEWAY
0010	369+36			RIGHT	5	DRIVEWAY
0010	380+05			LEFT	5	DRIVEWAY
0010	390+88			RIGHT	5	DRIVEWAY
0010	404+48			LEFT	5	DRIVEWAY
0010	419+78			LEFT	5	DRIVEWAY
0010	428+88			RIGHT	5	DRIVEWAY
0010	432+30			LEFT	5	DRIVEWAY
0010	433+22			RIGHT	5	DRIVEWAY
0010	440+21			LEFT	5	DRIVEWAY
0010	463+09			RIGHT	5	DRIVEWAY
0010	463+11			LEFT	5	DRIVEWAY
0010	481+19			RIGHT	5	DRIVEWAY
0010	489+24			RIGHT	5	DRIVEWAY
0010	497+92			RIGHT	10	DRIVEWAY
0010	500+70			LEFT	5	DRIVEWAY
0010	559+50			RIGHT	5	DRIVEWAY
0010	567+46			LEFT	5	DRIVEWAY
0010	572+98			LEFT	5	DRIVEWAY
0010	580+08			RIGHT	5	DRIVEWAY
0010	583+24			LEFT	5	DRIVEWAY
0010	584+89			RIGHT	5	DRIVEWAY
0010	648+21			RIGHT	5	DRIVEWAY
0010	666+97			RIGHT	5	DRIVEWAY
0010	671+33			LEFT	5	DRIVEWAY
SUBTOTAL #5 =					230	

BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)

305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	673+96			LEFT	5	DRIVEWAY
0010	711+52			RIGHT	5	DRIVEWAY
0010	718+91			RIGHT	5	DRIVEWAY
0010	730+57			RIGHT	5	DRIVEWAY
0010	734+44			RIGHT	5	DRIVEWAY
0010	740+30			RIGHT	5	DRIVEWAY
0010	757+46			RIGHT	5	DRIVEWAY
0010	762+06			RIGHT	5	DRIVEWAY
0010	769+88			LEFT	5	DRIVEWAY
0010	784+71			RIGHT	5	DRIVEWAY
0010	792+58			LEFT	5	DRIVEWAY
0010	793+99			RIGHT	5	DRIVEWAY
0010	802+40			RIGHT	5	DRIVEWAY
0010	814+24			RIGHT	5	DRIVEWAY
0010	818+12			LEFT	10	DRIVEWAY
0010	820+31			RIGHT	5	DRIVEWAY
0010	823+33			RIGHT	5	DRIVEWAY
0010	826+28			RIGHT	5	DRIVEWAY
0010	UNDISTRBUTED			RIGHT & LEFT	20	
SUBTOTAL #6 =					115	
					+	
SUBTOTAL #1 =					1,223	
					+	
SUBTOTAL #2 =					1,326	
					+	
SUBTOTAL #3 =					1,124	
					+	
SUBTOTAL #4 =					1,079	
					+	
SUBTOTAL #5 =					230	
PROJECT TOTALS =					5,097	

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	763+12	-	767+60	LT	210	747TH STREET R.T.L.
PROJECT TOTALS =					210	

3

3

SHAPING SHOULDERS

305.0500						
CATEGORY	STATION	TO	STATION	LOCATION	STA	REMARKS
0010	99+23	-	109+28	RT SHLDR	11	
0010	110+84	-	117+05	RT SHLDR	7	
0010	117+96	-	167+73	RT SHLDR	50	
0010	223+82	-	246+71	RT SHLDR	23	
0010	250+33	-	253+78	RT SHLDR	4	
0010	255+09	-	329+09	RT SHLDR	74	
0010	329+66	-	348+25	RT SHLDR	19	
0010	348+95	-	409+63	RT SHLDR	61	
0010	410+32	-	453+08	RT SHLDR	43	
0010	454+49	-	529+85	RT SHLDR	76	
0010	530+37	-	534+86	RT SHLDR	5	
0010	535+43	-	592+96	RT SHLDR	58	
0010	594+49	-	611+46	RT SHLDR	3	
0010	635+60	-	695+02	RT SHLDR	60	
0010	695+81	-	726+14	RT SHLDR	31	
0010	726+96	-	743+23	RT SHLDR	17	
0010	745+16	-	774+58	RT SHLDR	30	
0010	779+12	-	798+09	RT SHLDR	19	
0010	798+99	-	830+25	RT SHLDR	32	
0010	99+23	-	105+61	LT SHLDR	7	
0010	106+34	-	107+27	LT SHLDR	1	
0010	107+94	-	109+33	LT SHLDR	2	
0010	110+95	-	175+04	LT SHLDR	65	
0010	176+04	-	182+64	LT SHLDR	7	
0010	205+80	-	246+71	LT SHLDR	41	
0010	250+33	-	351+87	LT SHLDR	102	
0010	356+75	-	368+61	LT SHLDR	12	
0010	370+03	-	453+10	LT SHLDR	84	
0010	454+07	-	496+29	LT SHLDR	43	
0010	497+03	-	592+86	LT SHLDR	96	
0010	594+43	-	611+57	LT SHLDR	3	
0010	612+87	-	657+78	LT SHLDR	24	
0010	659+04	-	726+30	LT SHLDR	68	
0010	727+16	-	736+27	LT SHLDR	10	
0010	736+94	-	743+69	LT SHLDR	7	
0010	744+51	-	763+33	LT SHLDR	19	
0010	767+22	-	784+41	LT SHLDR	18	
0010	785+43	-	797+68	LT SHLDR	13	
0010	798+48	-	832+08	LT SHLDR	34	
PROJECT TOTALS =					1,279	

ASPHALTIC INTERSECTION RUMBLE STRIP

465.0450						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	821+53	-	821+78	RT LANE	26	55 MPH
0010	827+03	-	827+28	RT LANE	26	55 MPH
0010	829+28	-	829+53	RT LANE	26	55 MPH
PROJECT TOTALS =					78	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS

460.4110.S						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	99+23	-	109+55	C/L JOINT	1,032	
0010	110+69	-	246+84	C/L JOINT	13,615	
0010	250+19	-	593+01	C/L JOINT	34,282	
0010	594+36	-	833+00	C/L JOINT	23,864	
PROJECT TOTALS =					72,793	

ASPHALTIC FLUMES

465.0315					
CATEGORY	STATION	LOCATION	SY	REMARKS	
0010	105+15	LT SHLDR	8		
0010	105+69	LT SHLDR	16		
0010	107+36	LT	8	WAYSIDE	
0010	108+36	LT SHLDR	7		
0010	109+18	LT SHLDR	8		
0010	111+36	LT SHLDR	8		
0010	158+70	LT SHLDR	8		
0010	331+66	LT SHLDR	8		
0010	335+61	LT SHLDR	8		
0010	337+11	LT SHLDR	8		
0010	832+12	LT SHLDR	8		
0010	RAMP	LT SHLDR	9		
PROJECT TOTALS =			104		

3

ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	ASPHALTIC	ASPHALTIC	ASPHALTIC	REMARKS
					SURFACE	SURFACE	SURFACE	
					465.0105	465.0110	465.0120	
					TON	TON	TON	
0010	UNDISTRIBUTED				3,500	-	-	FOR LEVELING AND SPOT LANE REPAIRS
0010	UNDISTRIBUTED				-	50	-	PATCHING AND BUTT JOINT WEDGE
0010	99+73	-	108+99	LEFT	204	-	-	SHOULDER REPAIR SECTIONS
0010	111+27	-	116+00	LEFT	102	-	-	SHOULDER REPAIR SECTIONS
0010	209+77	-	212+47	LEFT	61	-	-	SHOULDER REPAIR SECTIONS
0010	290+50	-	296+50	LEFT	123	-	-	SHOULDER REPAIR SECTIONS
0010	295+50	-	301+00	RIGHT	123	-	-	SHOULDER REPAIR SECTIONS
0010	521+50	-	525+50	LEFT	82	-	-	SHOULDER REPAIR SECTIONS
0010	UNDISTRIBUTED				143	-	-	SHOULDER REPAIR SECTIONS
0010	820+61	-	820+86	RIGHT	-	15	-	11' X 25' CONCRETE RUMBLE STRIP
0010	826+26	-	826+51	RIGHT	-	15	-	11' X 25' CONCRETE RUMBLE STRIP
0010	830+06	-	830+31	RIGHT	-	15	-	11' X 25' CONCRETE RUMBLE STRIP
0010	155+60			RIGHT	-	-	5	DRIVEWAY
0010	162+36			RIGHT	-	-	10	DRIVEWAY
0010	326+18			RIGHT	-	-	5	DRIVEWAY
0010	487+29			RIGHT	-	-	5	DRIVEWAY
0010	545+79			RIGHT	-	-	25	DRIVEWAY
0010	640+73			RIGHT	-	-	5	DRIVEWAY
0010	643+64			RIGHT	-	-	5	DRIVEWAY
0010	647+42			RIGHT	-	-	5	DRIVEWAY
0010	656+39			RIGHT	-	-	5	DRIVEWAY
0010	672+51			RIGHT	-	-	5	DRIVEWAY
0010	781+29			RIGHT	-	-	5	DRIVEWAY
0010	787+03			RIGHT	-	-	5	DRIVEWAY
0010	817+29			RIGHT	-	-	5	DRIVEWAY
PROJECT TOTALS =					4,338	95	90	

CONCRETE BARRIER

CATEGORY	STATION	TO	STATION	LOCATION	CONCRETE BARRIER	CONCRETE BARRIER	REMARKS
					TEMPORARY PRECAST	TEMPORARY PRECAST	
					DELIVERED	INSTALLED	
					603.8000	603.8125	
					LF	LF	
0010	108+25	-	112+02	LT	375	375	B-47-120
PROJECT TOTALS =					375	375	

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	LOCATION	614.0010		REMARKS
			EACH		
0010	99+50	21' RT	1		E.A.T.
0010	106+05	56.5' LT	1		S.R.T.
0010	107+53	55.1' LT	1		S.R.T.
0010	115+92	22' RT	1		E.A.T.
0010	119+95	22' LT	1		E.A.T.
0010	121+83	20' LT	1		E.A.T.
0010	157+25	20' RT	1		E.A.T.
0010	161+90	20' RT	1		E.A.T.
0010	162+26	20' LT	1		E.A.T.
0010	162+62	20' LT	1		E.A.T.
0010	183+14	18' LT	1		E.A.T.
0010	183+28	16' LT	1		TYPE 2
0010	184+19	18' LT	1		E.A.T.
0010	204+94	18' RT	1		E.A.T.
0010	208+50	18' RT	1		E.A.T.
0010	208+59	19' LT	1		E.A.T.
0010	10+94 G	15' LT	1		S.R.T.
0010	225+20	35.6' RT	1		S.R.T.
0010	225+79	20' LT	1		E.A.T.
0010	245+68	20' RT	1		E.A.T.
0010	245+68	19' LT	1		E.A.T.
0010	251+35	20' RT	1		E.A.T.
0010	251+35	19' LT	1		E.A.T.
0010	266+94	20' LT	1		E.A.T.
0010	284+00	20' RT	1		E.A.T.
0010	285+73	45' RT	1		S.R.T.
0010	297+04	20' RT	1		E.A.T.
0010	298+26	20' LT	1		E.A.T.
0010	298+74	20' LT	1		E.A.T.
0010	299+48	20' RT	1		E.A.T.
0010	311+55	19' LT	1		E.A.T.
0010	316+31	20' LT	1		E.A.T.
0010	333+13	19' RT	1		E.A.T.
0010	10+75 J	15' RT	1		S.R.T.
0010	351+18	20' LT	1		E.A.T.
0010	357+99	20' LT	1		E.A.T.
0010	361+67	20' RT	1		E.A.T.
0010	366+59	19' LT	1		E.A.T.
0010	366+92	19' RT	1		E.A.T.
0010	371+39	20' LT	1		E.A.T.
0010	379+90	19' LT	1		E.A.T.
0010	380+15	19' LT	1		E.A.T.
0010	392+45	20' LT	1		E.A.T.
0010	396+62	20' LT	1		E.A.T.
0010	401+75	18' RT	1		E.A.T.
0010	404+35	19' LT	1		E.A.T.
0010	10+69 K	17.3' RT	1		S.R.T.
0010	417+45	20' RT	1		E.A.T.
0010	428+07	20' RT	1		E.A.T.

SUBTOTAL #1 = 49
* SEE BARRIER SYSTEM GRADING SHAPING FINISHING CONSTRUCTION
DETAIL FOR INFORMATION ONLY FINISHING QUANTITIES.

3

BARRIER SYSTEM GRADING SHAPING FINISHING (CONTINUED)

614.0010					
CATEGORY	STATION	LOCATION	EACH	REMARKS	
0010	432+55	20' LT	1	E.A.T.	
0010	433+50	20' RT	1	E.A.T.	
0010	438+11	20' LT	1	E.A.T.	
0010	441+19	20' RT	1	E.A.T.	
0010	482+17	20' RT	1	E.A.T.	
0010	483+08	20' LT	1	E.A.T.	
0010	485+85	20' RT	1	E.A.T.	
0010	496+15	20' LT	1	E.A.T.	
0010	497+18	20' LT	1	E.A.T.	
0010	498+59	20' RT	1	E.A.T.	
0010	500+42	20' LT	1	E.A.T.	
0010	526+12	20' LT	1	E.A.T.	
0010	529+78	19' RT	1	E.A.T.	
0010	535+50	20' RT	1	E.A.T.	
0010	545+06	20' RT	1	E.A.T.	
0010	547+36	20' LT	1	E.A.T.	
0010	549+93	20' LT	1	E.A.T.	
0010	560+85	20' RT	1	E.A.T.	
0010	564+10	20' LT	1	E.A.T.	
0010	571+35	20' RT	1	E.A.T.	
0010	591+84	22' LT	1	E.A.T.	
0010	591+90	24' RT	1	E.A.T.	
0010	595+45	24' LT	1	E.A.T.	
0010	595+54	24' RT	1	E.A.T.	
0010	634+88	24' RT	1	E.A.T.	
0010	635+41	20' LT	1	E.A.T.	
0010	638+58	19' LT	1	E.A.T.	
0010	639+22	20' RT	1	E.A.T.	
0010	818+61	23' LT	1	E.A.T.	
SUBTOTAL #2 =			29		
+					
SUBTOTAL #1 =			49		

PROJECT TOTALS = 78

* SEE BARRIER SYSTEM GRADING SHAPING FINISHING CONSTRUCTION
DETAIL FOR INFORMATION ONLY FINISHING QUANTITIES.

ADJUSTING MANHOLE COVERS, AND COVER PLATES TEMPORARY

611.8110 611.8120.S					
		ADJUSTING MANHOLE COVERS	COVER PLATES TEMPORARY		
CATEGORY	STATION	LOCATION	EACH	EACH	REMARKS
0010	173+88	LT 6'	1	1	STMH
0010	176+83	LT 6'	1	1	STMH
PROJECT TOTALS =			2	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CULVERT AND DITCH CLEANING

CLEANING CULVERT PIPES 520.7000 CLEANING DITCH SPV.0060.02					
CATEGORY	STATION	LOCATION	EACH	EACH	REMARKS
0010	10+54 A	CTH AA	1	-	CMP 24" X 85'
0010	119+45	MAINLINE	1	2	CMP 24" X 55'
0010	133+25	MAINLINE	1	1	CMP 24" X 66'
0010	137+40	MAINLINE	1	1	CMP 24"
0010	201+30	MAINLINE	1	-	CMP 72" X 50'
0010	224+50	MAINLINE	1	2	CONCRETE BOX
0010	10+99 H	CTH A	1	2	CMP 36" X 84'
0010	266+70	MAINLINE	1	1	CMP 30" X 58'
0010	276+60	MAINLINE	1	1	CMP 30" X 112'
0010	318+00	MAINLINE	1	1	CMP 24" X 75'
0010	347+50	MAINLINE	1	2	RCCP 42" X 115'
0010	349+85	MAINLINE	1	1	CMP 24" X 56'
0010	452+55	MAINLINE	-	1	CMP 30" X 110'
0010	9+44 L	CTH D	-	1	CMP 24" X 85'
0010	10+65 L	CTH D	-	1	CMP 24" X 120'
0010	464+30	MAINLINE	1	1	CMP 30" X 100'
0010	465+00	MAINLINE	1	-	CMP 72" X 48" X 74' CATTLE PASS
0010	488+60	MAINLINE	1	1	CMP 36" X 110'
0010	500+00	MAINLINE	1	1	CMP 72" X 120'
0010	512+40	MAINLINE	1	-	CMP 30" X 72'
0010	514+50	MAINLINE	1	-	CMP 48" X 100'
0010	534+75	MAINLINE	1	-	CMP 42" X 96'
0010	537+20	MAINLINE	1	2	NEEDS TO BE LOCATED
0010	538+20	MAINLINE	1	2	NEEDS TO BE LOCATED
0010	544+10	MAINLINE	1	2	NEEDS TO BE LOCATED
0010	555+10	MAINLINE	1	1	CMP 30" X 66'
0010	10+73 Q	150TH AVE.	1	2	CMP 24" X 78'
0010	648+40	MAINLINE	1	2	CMP 24" X 72'
0010	29+54 R	135TH AVE.	1	2	RCCP 21" X 88'
0010	662+30	MAINLINE	1	2	CMP 72" X 48" X 72' ARCH
0010	9+49 T	717TH AVE.	1	2	CMP 15" X 24" X 90' ELLIPTICAL
0010	9+60 U	AIRPORT RD.	1	2	CMP 18" X 62'
0010	743+75	MAINLINE	1	2	CMP 36" X 130'
0010	10+85 W	CTH C	1	1	CMP 36" X 88'
0010	10+51 Z	770TH ST.	1	2	CMP ??" X 70'
0010	805+50	MAINLINE	1	2	CMP 30" X 120'
0010	814+60	MAINLINE	1	1	CMP 24" X 120'
0010	10+47 AA	PRAIRIE RD.	1	2	CMP 24" X 62'
PROJECT TOTALS =			35	49	

3

3

3

BEAM GUARD ITEMS																		
CATEGORY	STATION	TO	STATION	LOCATION	STEEL THRIE	STEEL PLATE	STEEL PLATE	STEEL PLATE BEAM	STEEL PLATE BEAM	GUARDRAIL	GUARDRAIL	MGS	MGS	MGS THRIE	MGS GUARDRAIL	MGS GUARDRAIL	MGS	REMARKS
					BEAM STRUCTURE	BEAM GUARD	BEAM GUARD	GUARD ENERGY	GUARD SHORT	MOW STRIP	STIFFENED		GUARDRAIL	BEAM				
					614.0200	614.0305	614.0345	614.0370	614.0390	614.0396	614.0515	614.2300	614.2330	614.2500	614.2610	614.2620	SPV.0090.04	
					LF	LF	LF	EACH	EACH	SY	LF	LF	LF	LF	EACH	EACH	LF	
0010	99+17	-	106+05	20' LT	-	-	37.5	-	1	-	650.0	-	-	-	-	-	-	20.8' RADIUS, 7 CRT POSTS
0010	99+50	-	109+31	20' RT	-	-	-	-	-	-	-	900.0	-	39.4	1	-	-	MODIFIED GRADING AT 99+50.4
0010	105+09	-	105+99	LT	-	-	-	-	-	35	-	-	-	-	-	-	-	
0010	107+53	-	109+45	20' LT	20.6	137.5	37.5	-	1	-	-	-	-	-	-	-	-	22.2' RADIUS, 7 CRT POSTS
0010	110+81	-	115+92	20' RT	-	-	-	-	-	-	-	425.0	-	39.4	1	-	-	
0010	110+92	-	119+95	20' LT	-	-	-	-	-	-	-	-	800.0	39.4	1	-	-	
0010	121+83	-	162+26	18' LT	-	-	-	-	-	-	-	3,937.5	-	-	2	-	-	
0010	157+25	-	161+90	18' RT	-	-	-	-	-	-	-	362.5	-	-	2	-	-	
0010	162+62	-	183+14	16'-18' LT	-	-	-	-	-	-	-	1,950.0	-	-	2	-	-	25:1 TAPER STA. 167+23 TO 167+73 (18' TO 16')
0010	183+28	-	184+19	16' LT	-	-	-	-	-	-	-	37.5	-	-	1	1	-	
0010	204+94	-	208+50	16' RT	-	-	-	-	-	-	-	-	-	-	2	-	250.0	RAIL ON BOTH SIDES OF POSTS, DOUBLE RAIL ON BACK
0010	208+59	-	225+79	18' LT	-	-	-	-	-	-	-	-	1,612.5	-	2	-	-	MODIFIED GRADING AT 208+58.8
0010	10+94 G	-	225+20	18' RT	-	100.0	87.5	-	2	-	-	-	-	-	-	-	-	15.3' RADIUS W/ 9 CRT, 25' RADIUS W/ 7 CRT
0010	245+68	-	246+73	18' RT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	
0010	245+68	-	246+73	18' LT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	MODIFIED GRADING AT 245+68.1
0010	250+30	-	251+35	18' RT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	
0010	250+30	-	251+35	18' LT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	MODIFIED GRADING AT 251+35.3
0010	266+94	-	298+26	18' LT	-	-	-	-	-	-	-	-	3,025.0	-	2	-	-	
0010	284+00	-	285+73	18' RT	-	100.0	25.0	1	1	-	-	-	-	-	-	-	-	12.3' RADIUS, 5 CRT POSTS
0010	297+04	-	299+48	18' RT	-	-	-	-	-	-	-	-	137.5	-	2	-	-	
0010	298+74	-	311+55	18' LT	-	-	-	-	-	-	-	-	1,175.0	-	2	-	-	MODIFIED GRADING AT 311+54.7
0010	316+31	-	351+18	18' LT	-	-	-	-	-	-	-	3,375.0	-	-	2	-	-	
0010	333+13	-	10+75 J	18' RT	-	1,450.0	62.5	1	1	-	-	-	-	-	-	-	-	MODIFIED GRADING AT 333+13.1, 32' R, 11 CRT POSTS
0010	357+99	-	366+59	18' LT	-	-	-	-	-	-	-	762.5	-	-	2	-	-	MODIFIED GRADING AT 366+58.7
0010	361+67	-	366+92	18' RT	-	-	-	-	-	-	-	412.5	-	-	2	-	-	MODIFIED GRADING AT 366+91.8
0010	371+39	-	379+90	18' LT	-	-	-	-	-	-	-	750.0	-	-	2	-	-	MODIFIED GRADING AT 379+89.6
0010	380+15	-	392+45	18' LT	-	-	-	-	-	-	-	1,125.0	-	-	2	-	-	MODIFIED GRADING AT 380+15.3
0010	396+62	-	404+35	18' LT	-	-	-	-	-	-	-	662.5	-	-	2	-	-	MODIFIED GRADING AT 404+35.0
0010	401+75	-	10+69 K	18' RT	-	737.5	50.0	1	1	-	-	-	-	-	-	-	-	MODIFIED GRADING AT 401+75.2, 24' R, 9 CRT POSTS
0010	417+45	-	428+07	18' RT	-	-	-	-	-	-	-	962.5	-	-	2	-	-	
0010	432+55	-	438+11	18' LT	-	-	-	-	-	-	-	450.0	-	-	2	-	-	
0010	433+50	-	441+19	18' RT	-	-	-	-	-	-	-	662.5	-	-	2	-	-	
0010	482+17	-	485+85	18' RT	-	-	-	-	-	-	-	262.5	-	-	2	-	-	
0010	483+08	-	496+15	18' LT	-	-	-	-	-	-	-	1,200.0	-	-	2	-	-	
0010	497+11	-	500+42	18' LT	-	-	-	-	-	-	-	225.0	-	-	2	-	-	
0010	498+59	-	529+78	18' RT	-	-	-	-	-	-	-	3,025.0	-	-	2	-	-	MODIFIED GRADING AT 529+78.0
0010	526+12	-	547+36	18' LT	-	-	-	-	-	-	-	2,012.5	-	-	2	-	-	
0010	535+50	-	545+06	18' RT	-	-	-	-	-	-	-	850.0	-	-	2	-	-	
0010	549+93	-	564+10	18' LT	-	-	-	-	-	-	-	1,312.5	-	-	2	-	-	
0010	560+85	-	571+35	18' RT	-	-	-	-	-	-	-	950.0	-	-	2	-	-	
0010	591+84	-	592+87	22' LT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	MODIFIED GRADING AT 591+84.3
0010	591+90	-	592+97	22' RT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	
0010	594+42	-	595+45	22' LT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	
0010	594+47	-	595+54	22' RT	-	-	-	-	-	-	-	12.5	-	39.4	1	-	-	
0010	634+88	-	639+22	18' RT	-	-	-	-	-	-	-	325.0	-	-	2	-	-	20:1 TAPER STA. 635+38 TO 636+18 (22' TO 18')
0010	635+41	-	638+58	18' LT	-	-	-	-	-	-	-	212.5	-	-	2	-	-	MODIFIED GRADING AT 638+57.9
0010	818+61	-	RAMP	LT	-	-	-	1	-	-	1,650.0	-	-	-	-	-	-	MODIFIED GRADING AT 818+61.1, INSTALL 6' FROM LANE LINE
PROJECT TOTALS =					20.6	2,525.0	300.0	4	7	35	2,300.0	27,250.0	6,750.0	433.4	66	1	250.0	

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO: 75

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

SALVAGED RAIL

614.0920						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	99+00	-	109+28	RT	1,042	B-47-120
0010	110+84	-	115+59	RT	482	B-47-121
0010	158+13	-	161+46	RT	337	
0010	205+35	-	208+50	RT	315	DBL RAIL ON SINGLE POST
0010	223+71	-	224+84	RT	136	
0010	246+01	-	246+71	RT	70	B-47-106
0010	250+33	-	251+03	RT	70	B-47-106
0010	284+69	-	285+71	RT	112	
0010	297+77	-	298+77	RT	101	
0010	333+66	-	348+06	RT	1,443	
0010	362+50	-	365+88	RT	335	
0010	402+66	-	409+18	RT	660	
0010	418+61	-	426+90	RT	834	
0010	434+45	-	439+08	RT	463	
0010	483+33	-	484+79	RT	147	
0010	499+33	-	523+47	RT	2,417	
0010	526+11	-	529+44	RT	339	
0010	535+51	-	544+44	RT	893	
0010	562+00	-	571+41	RT	955	
0010	592+01	-	592+96	RT	93	B-47-118
0010	594+49	-	595+46	RT	95	B-47-118
0010	635+78	-	638+82	RT	303	
0010	99+23	-	105+78	LT	647	
0010	107+84	-	109+43	LT	157	B-47-120
0010	110+95	-	119+19	LT	814	B-47-120
0010	122+56	-	162+26	LT	3,972	
0010	162+56	-	186+16	LT	2,059	
0010	183+27	-	184+18	LT	90	
0010	208+59	-	221+31	LT	1,273	
0010	223+86	-	224+95	LT	109	
0010	246+01	-	246+71	LT	70	B-47-106
0010	250+33	-	251+03	LT	70	B-47-106
0010	268+05	-	298+04	LT	2,999	
0010	298+88	-	309+32	LT	1,044	
0010	317+37	-	322+62	LT	524	
0010	324+12	-	349+79	LT	2,563	
0010	359+13	-	366+44	LT	738	
0010	372+44	-	378+86	LT	648	
0010	380+92	-	391+43	LT	1,063	
0010	396+69	-	404+33	LT	761	
0010	433+08	-	437+20	LT	413	
0010	484+12	-	496+09	LT	1,198	
0010	497+11	-	500+31	LT	321	
0010	527+18	-	545+18	LT	1,796	
0010	551+16	-	559+27	LT	812	
0010	561+33	-	562+85	LT	166	
0010	591+93	-	592+86	LT	95	B-47-118
0010	594+43	-	595+38	LT	96	B-47-118
0010	635+55	-	638+29	LT	278	
0010	819+87	-	832+10	LT	1,236	
PROJECT TOTALS =					37,654	

GUARD FENCE TIMBER RAIL SUMMARY

REMOVING GUARD FENCE TIMBER RAIL SPV.0090.01						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	105+99	-	106+82	LEFT	114	WAYSIDE
0010	106+43	-	107+13	LEFT	69	WAYSIDE
0010	106+92	-	107+59	LEFT	89	WAYSIDE
PROJECT TOTALS =					272	272

CURBS TREATED TIMBER SUMMARY

REMOVING CURBS TREATED TIMBER SPV.0060.01						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	251+16	-	253+73	RT	26	REST AREA
0010	366+97	-	368+43	LT	18	REST AREA
PROJECT TOTALS =					44	44

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1721-01-61

618.0100			
CATEGORY	STATION	LOCATION	REMARKS
0010		PROJECT	1
PROJECT TOTALS =			1

MOBILIZATION

619.1000			
CATEGORY	LOCATION	EACH	REMARKS
0010	PROJECT	0.8	
PROJECT TOTALS =			0.8

3

3

MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	MOBILIZATION		REMARKS
		EROSION	EMERGENCY	
		CONTROL	CONTROL	
		628.1905	628.1910	
		EACH	EACH	
0010	PROJECT	5	5	
PROJECT TOTALS =		5	5	

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555	REMARKS
			EACH	
0010	285+40	RT	2	
0010	298+43	RT	3	
0010	363+30	RT	3	
0010	484+40	RT	2	
PROJECT TOTALS =			10	

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504	REMARKS
			LF	
0010	119+45	LT	8	E.A.T.
0010	158+00	RT	8	E.A.T.
0010	246+20	LT	8	E.A.T.
0010	252+50	LT	10	E.A.T.
0010	283+00	RT	9	E.A.T.
0010	297+60	RT	15	E.A.T.
0010	300+50	RT	16	E.A.T.
0010	333+75	RT	8	E.A.T.
0010	350+50	LT	10	E.A.T.
0010	362+30	RT	11	E.A.T.
0010	379+00	LT	10	E.A.T.
0010	401+00	RT	11	E.A.T.
0010	403+75	LT	8	E.A.T.
0010	437+50	LT	8	E.A.T.
0010	482+75	RT	8	E.A.T.
0010	483+70	LT	8	E.A.T.
0010	485+00	RT	8	E.A.T.
0010	486+90	RT	8	E.A.T.
0010	526+75	LT	11	E.A.T.
0010	536+20	RT	8	E.A.T.
0010	548+50	LT	8	E.A.T.
0010	550+88	LT	14	E.A.T.
0010	561+50	RT	11	E.A.T.
0010	565+10	LT	8	E.A.T.
0010	592+50	LT	16	E.A.T.
0010	638+58	RT	8	E.A.T.
PROJECT TOTALS =			256	

INLET PROTECTION TYPE C

CATEGORY	STATION	LOCATION	628.7015	REMARKS
			EACH	
0010	173+83	RT	1	
0010	173+88	LT	1	
0010	176+63	RT	1	
0010	176+83	LT	1	
0010	176+83	RT	1	
0010	177+29	RT	1	
0010	177+30	LT	1	
0010	201+19	LT	1	
0010	201+19	RT	1	
0010	202+37	RT	1	
0010	205+25	RT	1	
0010	208+32	RT	1	
0010	215+71	RT	1	
0010	215+87	RT	1	
0010	611+48	RT	1	
0010	612+68	RT	1	
0010	620+13	RT	1	
0010	622+99	RT	1	
0010	626+44	RT	1	
0010	627+92	RT	1	
0010	629+76	RT	1	
PROJECT TOTALS =			21	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

SILT FENCE SUMMARY

SILT FENCE SUMMARY (CONTINUED)

3

					SILT FENCE	SILT FENCE	REMARKS
					628.1504	628.1520	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	
0010	99+11	-	100+00	RT	95	95	E.A.T.
0010	115+44	-	117+11	RT	175	175	E.A.T.
0010	10+54 A			RT	30	30	CULVERT AT CTH AA
0010	119+45			LT	30	30	CULVERT AT STA 119+45
0010	133+25			LT	30	30	CULVERT AT STA 133+25
0010	137+40			LT	30	30	CULVERT AT STA 137+40
0010	161+35	-	162+03	RT	70	70	E.A.T.
0010	201+30			LT	35	35	CULVERT AT STA 201+30
0010	208+26	-	209+09	LT	85	85	E.A.T.
0010	224+50			LT	35	35	BOX CULVERT AT STA 224+50
0010	225+25	-	226+69	LT	150	150	E.A.T.
0010	244+78	-	246+58	RT	190	190	E.A.T.
0010	250+85	-	252+25	RT	145	145	E.A.T.
0010	10+99 H			RT	30	30	CULVERT AT CTH A
0010	266+04	-	267+44	LT	140	140	E.A.T.
0010	266+70			RT	30	30	CULVERT AT STA 266+70
0010	276+60			LT	30	30	CULVERT AT STA 276+60
0010	297+76	-	298+26	LT	50	50	E.A.T.
0010	298+74	-	299+24	LT	55	55	E.A.T.
0010	311+05	-	311+73	LT	70	70	E.A.T.
0010	315+40	-	316+81	LT	140	140	E.A.T.
0010	318+00			LT	30	30	CULVERT AT STA 318+00
0010	347+50			LT	30	30	CULVERT AT STA 347+50
0010	348+00	-	11+07 J	RT	95	95	S.R.T. AT 113TH ST.
0010	349+85			RT	30	30	CULVERT AT STA 349+85
0010	357+10	-	358+55	LT	150	150	E.A.T.
0010	366+09	-	367+11	LT	105	105	E.A.T.
0010	366+41	-	367+37	RT	95	95	E.A.T.
0010	370+94	-	371+98	LT	105	105	E.A.T.
0010	391+95	-	393+31	LT	140	140	E.A.T.
0010	395+72	-	397+12	LT	140	140	E.A.T.
0010	409+21	-	10+94 K	RT	90	90	S.R.T. AT 125TH ST.
0010	416+56	-	417+94	RT	145	145	E.A.T.
0010	427+48	-	428+71	RT	125	125	E.A.T.
0010	432+35	-	433+05	LT	70	70	E.A.T.
0010	440+60	-	442+10	RT	150	150	E.A.T.
0010	452+55			RT	30	30	CULVERT AT STA 452+55
0010	9+44 L			RT	30	30	CULVERT AT CTH D
0010	10+65 L			RT	30	30	CULVERT AT CTH D
0010	464+30			LT	30	30	CULVERT AT STA 464+30
0010	488+60			LT	30	30	CULVERT AT STA 488+60
0010	495+54	-	496+35	LT	80	80	E.A.T.
0010	496+91	-	497+62	LT	70	70	E.A.T.
0010	498+41	-	499+09	RT	70	70	E.A.T.
SUBTOTAL #1 =					3,515	3,515	

					SILT FENCE	SILT FENCE	REMARKS
					628.1504	628.1520	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	
0010	499+89	-	500+48	LT	65	65	E.A.T.
0010	500+00			RT	35	35	CULVERT AT STA 500+00
0010	534+75			LT	30	30	CULVERT AT STA 534+75
0010	537+20			LT	50	50	CULVERT AT STA 537+20
0010	538+20			LT	50	50	CULVERT AT STA 538+20
0010	544+10			LT	50	50	CULVERT AT STA 544+10
0010	546+69	-	548+36	LT	170	170	E.A.T.
0010	555+10			LT	30	30	CULVERT AT STA 555+10
0010	570+85	-	572+25	RT	145	145	E.A.T.
0010	590+38	-	592+64	RT	225	225	E.A.T.
0010	594+74	-	596+77	RT	200	200	E.A.T.
0010	10+73 Q			RT	30	30	CULVERT AT 150TH AVE.
0010	634+79	-	635+96	LT	120	120	E.A.T.
0010	634+87	-	635+46	RT	60	60	E.A.T.
0010	638+08	-	639+47	LT	140	140	E.A.T.
0010	648+40			LT	30	30	CULVERT AT STA 648+40
0010	29+54 R			RT	30	30	CULVERT AT 135TH AVE
0010	662+30			RT	35	35	CULVERT AT STA 662+30
0010	9+49 T			LT	30	30	CULVERT AT 717TH ST
0010	9+60 U			LT	30	30	CULVERT AT AIRPORT RD
0010	743+75			RT	30	30	CULVERT AT STA 743+75
0010	10+85 W			LT	30	30	CULVERT AT CTH C
0010	10+51 Z			LT	30	30	CULVERT AT 770TH ST
0010	805+50			LT	30	30	CULVERT AT 805+50
0010	814+60			LT	30	30	CULVERT AT 814+60
0010	818+61	-	819+11	LT	50	50	E.A.T.
0010	10+47 AA			LT	30	30	CULVERT AT 170TH AVE
0010	UNDISTRIBUTED				1,500	1,500	
SUBTOTAL #2 =					3,285	3,285	
+							
SUBTOTAL #1 =					3,515	3,515	
PROJECT TOTALS =					6,800	6,800	

3

3

EROSION CONTROL & LANDSCAPING ITEMS

CATEGORY	STATION	TO	STATION	SF	LOCATION	SALVAGED	MULCHING	FERTILIZER	SEEDING	SEEDING	REMARKS
						TOPSOIL 625.0500 SY	627.0200 SY	TYPE B 629.0210 CWT	MIXTURE NO. 30 630.0130 LBS	TEMPORARY 630.0200 LBS	
0010	100+00	-	109+28	3714.4	RT SHOULDER	-	-	0.26	7.4	11.1	
0010	110+84	-	115+43	1838.4	RT SHOULDER	-	-	0.13	3.7	5.5	
0010	117+96	-	119+51	0	RT SHOULDER	-	-	0.00	0.0	0.0	
0010	119+51	-	120+84	154.9	RT SHOULDER	-	-	0.01	0.3	0.5	
0010	120+84	-	155+44	266.6	RT SHOULDER	-	-	0.02	0.5	0.8	
0010	155+77	-	156+35	10379.7	RT SHOULDER	-	-	0.73	20.8	31.1	
0010	157+75	-	161+41	174	RT SHOULDER	-	-	0.01	0.3	0.5	
0010	162+63	-	167+73	1530.6	RT SHOULDER	-	-	0.11	3.1	4.6	
0010	223+77	-	224+98	561.2	RT SHOULDER	-	-	0.04	1.1	1.7	
0010	226+04	-	244+78	5621.7	RT SHOULDER	-	-	0.39	11.2	16.9	
0010	246+18	-	246+71	210.4	RT SHOULDER	-	-	0.01	0.4	0.6	
0010	250+33	-	250+85	210.4	RT SHOULDER	-	-	0.01	0.4	0.6	
0010	252+25	-	253+78	456.6	RT SHOULDER	-	-	0.03	0.9	1.4	
0010	255+09	-	283+55	8537.7	RT SHOULDER	-	-	0.60	17.1	25.6	
0010	284+50	-	285+54	416.8	RT SHOULDER	-	-	0.03	0.8	1.3	
0010	286+66	-	296+14	2843.4	RT SHOULDER	-	-	0.20	5.7	8.5	
0010	297+54	-	298+98	287.4	RT SHOULDER	-	-	0.02	0.6	0.9	
0010	300+38	-	328+95	8570.4	RT SHOULDER	-	-	0.60	17.1	25.7	
0010	329+78	-	332+89	934.5	RT SHOULDER	-	-	0.07	1.9	2.8	
0010	333+63	-	348+19	5823.2	RT SHOULDER	-	-	0.41	11.6	17.5	
0010	348+95	-	360+76	3543.9	RT SHOULDER	-	-	0.25	7.1	10.6	
0010	362+18	-	366+41	1694.8	RT SHOULDER	-	-	0.12	3.4	5.1	
0010	367+16	-	401+46	10288.2	RT SHOULDER	-	-	0.72	20.6	30.9	
0010	402+25	-	409+59	2938.8	RT SHOULDER	-	-	0.21	5.9	8.8	
0010	410+48	-	416+56	1823.7	RT SHOULDER	-	-	0.13	3.6	5.5	
0010	417+94	-	427+57	3853.6	RT SHOULDER	-	-	0.27	7.7	11.6	
0010	429+08	-	432+60	1055.4	RT SHOULDER	-	-	0.07	2.1	3.2	
0010	434+00	-	440+69	2675.2	RT SHOULDER	-	-	0.19	5.4	8.0	
0010	442+10	-	453+08	3294.3	RT SHOULDER	-	-	0.23	6.6	9.9	
0010	454+49	-	481+06	7970.1	RT SHOULDER	-	-	0.56	15.9	23.9	
0010	482+67	-	485+35	1073.2	RT SHOULDER	-	-	0.08	2.1	3.2	
0010	486+75	-	487+13	112.5	RT SHOULDER	-	-	0.01	0.2	0.3	
0010	487+45	-	497+50	3012.9	RT SHOULDER	-	-	0.21	6.0	9.0	
0010	499+09	-	529+29	12081.6	RT SHOULDER	-	-	0.85	24.2	36.2	
0010	530+54	-	534+72	1256.1	RT SHOULDER	-	-	0.09	2.5	3.8	
0010	536+00	-	544+56	3424.8	RT SHOULDER	-	-	0.24	6.8	10.3	
0010	546+13	-	559+95	4145.7	RT SHOULDER	-	-	0.29	8.3	12.4	
0010	561+35	-	570+86	3803.2	RT SHOULDER	-	-	0.27	7.6	11.4	
0010	572+25	-	590+38	5439.6	RT SHOULDER	-	-	0.38	10.9	16.3	
0010	592+41	-	592+96	218	RT SHOULDER	-	-	0.02	0.4	0.7	
0010	594+49	-	595+03	218.4	RT SHOULDER	-	-	0.02	0.4	0.7	
0010	596+36	-	597+44	325.2	RT SHOULDER	-	-	0.02	0.7	1.0	
0010	635+19	-	638+71	1409.6	RT SHOULDER	-	-	0.10	2.8	4.2	
0010	640+12	-	640+54	124.2	RT SHOULDER	-	-	0.01	0.2	0.4	
0010	640+92	-	643+44	755.4	RT SHOULDER	-	-	0.05	1.5	2.3	
0010	643+85	-	647+28	1027.8	RT SHOULDER	-	-	0.07	2.1	3.1	
0010	647+56	-	656+20	2592.9	RT SHOULDER	-	-	0.18	5.2	7.8	
0010	656+58	-	672+29	4711.8	RT SHOULDER	-	-	0.33	9.4	14.1	
0010	672+73	-	694+84	6631.5	RT SHOULDER	-	-	0.46	13.3	19.9	
SUBTOTAL #1 =						0.00	0.00	10.11	287.8	432.2	

3

EROSION CONTROL & LANDSCAPING ITEMS (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED TOPSOIL 625.0500	MULCHING 627.0200	FERTILIZER TYPE B 629.0210	SEEDING MIXTURE NO. 30 630.0130	SEEDING TEMPORARY 630.0200	REMARKS
					SY	SY	CWT	LBS	LBS	
0010	696+06	-	725+99	RT SHOULDER	-	-	0.63	18.0	26.9	
0010	727+07	-	743+23	RT SHOULDER	-	-	0.34	9.7	14.5	
0010	745+16	-	774+58	RT SHOULDER	-	-	0.62	17.7	26.5	
0010	779+12	-	781+12	RT SHOULDER	-	-	0.04	1.2	1.8	
0010	781+46	-	786+89	RT SHOULDER	-	-	0.11	3.3	4.9	
0010	787+18	-	797+92	RT SHOULDER	-	-	0.23	6.4	9.7	
0010	799+11	-	817+14	RT SHOULDER	-	-	0.38	10.8	16.2	
0010	817+44	-	830+25	RT SHOULDER	-	-	0.27	7.7	11.5	
0010	99+17	-	105+13	LT SHOULDER	-	-	0.08	2.4	3.6	
0010	105+17	-	105+62	LT SHOULDER	-	-	0.01	0.2	0.3	
0010	105+71	-	106+13	LT SHOULDER	-	-	0.02	0.5	0.7	
0010	107+46	-	108+34	LT SHOULDER	-	-	0.03	0.8	1.2	
0010	108+38	-	109+15	LT SHOULDER	-	-	0.02	0.6	0.9	
0010	109+20	-	109+43	LT SHOULDER	-	-	0.01	0.2	0.3	
0010	110+95	-	111+33	LT SHOULDER	-	-	0.01	0.2	0.2	
0010	111+39	-	119+45	LT SHOULDER	-	-	0.11	3.2	4.8	
0010	122+33	-	158+67	LT SHOULDER	-	-	1.02	29.1	43.6	
0010	158+73	-	161+76	LT SHOULDER	-	-	0.08	2.4	3.6	
0010	163+12	-	168+16	LT SHOULDER	-	-	0.14	4.0	6.0	
0010	168+19	-	178+74	LT SHOULDER	-	-	0.26	7.4	11.1	
0010	178+74	-	181+33	LT SHOULDER	-	-	0.07	2.1	3.1	
0010	181+33	-	181+70	LT SHOULDER	-	-	0.01	0.2	0.3	
0010	180+70	-	183+14	LT SHOULDER	-	-	0.03	1.0	1.5	
0010	183+27	-	184+23	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	205+80	-	208+14	LT SHOULDER	-	-	0.05	1.4	2.1	
0010	209+09	-	225+28	LT SHOULDER	-	-	0.23	6.5	9.7	
0010	226+69	-	245+44	LT SHOULDER	-	-	0.39	11.3	16.9	
0010	246+18	-	246+71	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	250+33	-	250+85	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	251+59	-	266+04	LT SHOULDER	-	-	0.30	8.7	13.0	
0010	267+44	-	297+76	LT SHOULDER	-	-	0.42	12.1	18.2	
0010	299+24	-	311+05	LT SHOULDER	-	-	0.17	4.7	7.1	
0010	312+02	-	315+40	LT SHOULDER	-	-	0.07	2.0	3.0	
0010	316+81	-	331+64	LT SHOULDER	-	-	0.42	11.9	17.8	
0010	331+68	-	335+59	LT SHOULDER	-	-	0.11	3.1	4.7	
0010	335+63	-	337+09	LT SHOULDER	-	-	0.04	1.2	1.8	
0010	337+13	-	350+68	LT SHOULDER	-	-	0.38	10.8	16.3	
0010	356+75	-	357+10	LT SHOULDER	-	-	0.01	0.2	0.3	
0010	358+49	-	366+09	LT SHOULDER	-	-	0.21	6.1	9.1	
0010	366+82	-	368+61	LT SHOULDER	-	-	0.04	1.1	1.6	
0010	370+03	-	370+49	LT SHOULDER	-	-	0.01	0.3	0.4	
0010	371+89	-	379+40	LT SHOULDER	-	-	0.21	6.0	9.0	
0010	380+65	-	391+95	LT SHOULDER	-	-	0.32	9.0	13.6	
0010	393+35	-	395+72	LT SHOULDER	-	-	0.05	1.4	2.1	
0010	397+12	-	403+84	LT SHOULDER	-	-	0.19	5.4	8.1	
0010	404+68	-	431+65	LT SHOULDER	-	-	0.57	16.2	24.3	
0010	433+05	-	437+61	LT SHOULDER	-	-	0.13	3.6	5.5	
SUBTOTAL #2 =					0.00	0.00	8.87	253.3	379.6	

3

3

EROSION CONTROL & LANDSCAPING ITEMS (CONTINUED)

CATEGORY	STATION	TO	STATION	SF	LOCATION	SALVAGED	MULCHING	FERTILIZER	SEEDING	SEEDING	REMARKS
						TOPSOIL 625.0500	627.0200	TYPE B 629.0210	MIXTURE NO. 30 630.0130	TEMPORARY 630.0200	
						SY	SY	CWT	LBS	LBS	
0010	439+01	-	453+10	4227.3	LT SHOULDER	-	-	0.30	8.5	12.7	
0010	454+07	-	482+18	8432.1	LT SHOULDER	-	-	0.59	16.9	25.3	
0010	483+58	-	495+65	4826	LT SHOULDER	-	-	0.34	9.7	14.5	
0010	497+68	-	499+92	896.4	LT SHOULDER	-	-	0.06	1.8	2.7	
0010	501+32	-	525+20	7164.6	LT SHOULDER	-	-	0.50	14.3	21.5	
0010	526+63	-	546+86	8095.2	LT SHOULDER	-	-	0.57	16.2	24.3	
0010	548+31	-	549+03	218.1	LT SHOULDER	-	-	0.02	0.4	0.7	
0010	550+43	-	563+60	5270.4	LT SHOULDER	-	-	0.37	10.5	15.8	
0010	565+01	-	591+40	7916.1	LT SHOULDER	-	-	0.55	15.8	23.7	
0010	592+33	-	592+86	210.4	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	594+43	-	594+96	210.4	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	596+33	-	597+44	332.4	LT SHOULDER	-	-	0.02	0.7	1.0	
0010	635+91	-	638+08	870	LT SHOULDER	-	-	0.06	1.7	2.6	
0010	638+82	-	657+78	5688.9	LT SHOULDER	-	-	0.40	11.4	17.1	
0010	659+04	-	726+11	20120.1	LT SHOULDER	-	-	1.41	40.2	60.4	
0010	727+35	-	736+15	2640	LT SHOULDER	-	-	0.18	5.3	7.9	
0010	737+06	-	743+57	1953	LT SHOULDER	-	-	0.14	3.9	5.9	
0010	744+66	-	762+92	5618.1	LT SHOULDER	-	-	0.39	11.2	16.9	
0010	768+13	-	784+29	5056.2	LT SHOULDER	-	-	0.35	10.1	15.2	
0010	785+61	-	797+57	3587.1	LT SHOULDER	-	-	0.25	7.2	10.8	
0010	798+64	-	817+67	5711.1	LT SHOULDER	-	-	0.40	11.4	17.1	
0010	819+11	-	833+35	3018.4	LT SHOULDER	-	-	0.21	6.0	9.1	
0010	RAMP			267.6	LT SHOULDER	-	-	0.02	0.5	0.8	
0010	RAMP			1086.9	RT SHOULDER	-	-	0.08	2.2	3.3	
0010	10+15 I	-	10+50 I	104.4	RT SHOULDER	-	-	0.01	0.2	0.3	
0010	10+25 I	-	10+50 I	81.8	LT SHOULDER	-	-	0.01	0.2	0.2	
0010	10+14 K	-	10+60 K	193.8	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	9+31 L	-	9+56 L	25.1	LT SHOULDER	-	-	0.00	0.1	0.1	
0010	10+64 L	-	10+78 L	14.1	RT SHOULDER	-	-	0.00	0.0	0.0	
0010	9+36 M	-	9+75 M	153	LT SHOULDER	-	-	0.01	0.3	0.5	
0010	9+36 M	-	9+75 M	120.6	RT SHOULDER	-	-	0.01	0.2	0.4	
0010	10+20 O	-	10+47 O	345.6	RT SHOULDER	-	-	0.02	0.7	1.0	
0010	10+25 O	-	10+47 O	70.5	LT SHOULDER	-	-	0.00	0.1	0.2	
0010	10+05 S	-	10+83 S	280.5	LT SHOULDER	-	-	0.02	0.6	0.8	
0010	10+49 S	-	10+83 S	212.7	RT SHOULDER	-	-	0.01	0.4	0.6	
0010	9+16 T	-	9+73 T	211.8	RT SHOULDER	-	-	0.01	0.4	0.6	
0010	9+16 T	-	9+73 T	268.5	LT SHOULDER	-	-	0.02	0.5	0.8	
0010	10+23 T	-	10+80 T	245.7	RT SHOULDER	-	-	0.02	0.5	0.7	
0010	10+24 T	-	10+80 T	212.1	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	9+40 U	-	9+76 U	151.5	RT SHOULDER	-	-	0.01	0.3	0.5	
0010	9+40 U	-	9+77 U	159.3	LT SHOULDER	-	-	0.01	0.3	0.5	
0010	9+20 V	-	9+76 V	234.6	RT SHOULDER	-	-	0.02	0.5	0.7	
0010	9+20 V	-	9+76 V	245.7	LT SHOULDER	-	-	0.02	0.5	0.7	
0010	9+19 Y	-	9+76 Y	213.9	RT SHOULDER	-	-	0.01	0.4	0.6	
0010	9+19 Y	-	9+76 Y	266.1	LT SHOULDER	-	-	0.02	0.5	0.8	
SUBTOTAL #3 =						0.00	0.00	7.48	214.2	321.7	

3

EROSION CONTROL & LANDSCAPING ITEMS (CONTINUED)

CATEGORY	STATION	TO	STATION	SF	LOCATION	SALVAGED TOPSOIL 625.0500 SY	MULCHING 627.0200 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LBS	SEEDING TEMPORARY 630.0200 LBS	REMARKS
0010	9+14 Z	-	9+45 Z	174	RT SHOULDER	-	-	0.01	0.3	0.5	
0010	9+14 Z	-	9+95 Z	267.3	LT SHOULDER	-	-	0.02	0.5	0.8	
0010	10+03 Z	-	10+90 Z	290.4	RT SHOULDER	-	-	0.02	0.6	0.9	
0010	10+60 Z	-	10+90 Z	183.6	LT SHOULDER	-	-	0.01	0.4	0.6	
0010	762+92	-	768+00	6043.2	LT	420	420	0.42	12.1	18.1	747TH ST & R.T.L.
SUBTOTAL #4 =						420	420	0.48	13.9	20.9	
+											
SUBTOTAL #1 =						0	0	10.11	287.8	432.2	
+											
SUBTOTAL #2 =						0	0	8.87	253.3	379.6	
+											
SUBTOTAL #3 =						0	0	7.48	214.2	321.7	
PROJECT TOTALS =						420	420	26.94	769.2	1154.4	

3

3

EROSION MAT CLASS I TYPE A

628.2002					
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	99+32	- 99+70	RT	47	E.A.T.
0010	105+54	- 106+00	LT	19	S.R.T.
0010	107+47	- 107+83	LT	26	S.R.T.
0010	119+62	- 121+07	LT	38	E.A.T.
0010	121+07	- 122+43	LT	147	E.A.T.
0010	156+30	- 157+78	RT	93	E.A.T.
0010	161+24	- 162+04	RT	81	E.A.T.
0010	161+75	- 162+26	LT	25	E.A.T.
0010	162+62	- 163+12	LT	25	E.A.T.
0010	208+53	- 209+17	LT	25	E.A.T.
0010	10+57 G	- 10+94 G	LT	10	S.R.T.
0010	224+78	- 225+18	RT	10	S.R.T.
0010	225+19	- 226+64	LT	119	E.A.T.
0010	244+57	- 246+21	RT	236	E.A.T.
0010	244+58	- 246+27	LT	240	E.A.T.
0010	250+82	- 252+34	RT	142	E.A.T.
0010	250+85	- 252+37	LT	158	E.A.T.
0010	265+91	- 267+51	LT	186	E.A.T.
0010	283+01	- 283+92	RT	38	E.A.T.
0010	285+48	- 285+72	RT	10	S.R.T.
0010	296+07	- 297+67	RT	93	E.A.T.
0010	297+61	- 298+25	LT	54	E.A.T.
0010	298+64	- 299+34	LT	40	E.A.T.
0010	298+89	- 300+46	RT	103	E.A.T.
0010	310+87	- 311+68	LT	59	E.A.T.
0010	315+35	- 316+97	LT	147	E.A.T.
0010	332+56	- 333+74	RT	141	E.A.T.
0010	10+23 J	- 11+05 J	RT	10	S.R.T.
0010	350+59	- 352+05	LT	56	E.A.T.
0010	357+04	- 358+62	LT	71	E.A.T.
0010	360+64	- 362+40	RT	156	E.A.T.
0010	365+92	- 367+14	LT	172	E.A.T.
0010	366+34	- 367+91	RT	154	E.A.T.
0010	370+49	- 371+90	LT	125	E.A.T.
0010	379+23	- 379+89	LT	25	E.A.T.
0010	380+19	- 380+82	LT	25	E.A.T.
0010	391+91	- 393+41	LT	178	E.A.T.
0010	395+73	- 397+13	LT	82	E.A.T.
0010	401+10	- 402+45	RT	211	E.A.T.
0010	403+73	- 404+40	LT	90	E.A.T.
0010	404+58	- 405+28	LT	90	E.A.T.
0010	10+27 K	- 10+84 K	RT	10	S.R.T.
0010	416+52	- 418+03	RT	156	E.A.T.
0010	427+59	- 428+48	RT	41	E.A.T.

SUBTOTAL #1 = 3,964

EROSION MAT CLASS I TYPE A (CONTINUED)

628.2002					
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	432+40	- 433+17	LT	88	E.A.T.
0010	433+36	- 434+03	RT	105	E.A.T.
0010	437+53	- 439+18	LT	278	E.A.T.
0010	440+65	- 441+79	RT	57	E.A.T.
0010	481+32	- 482+76	RT	81	E.A.T.
0010	482+10	- 483+66	LT	158	E.A.T.
0010	485+24	- 486+73	RT	97	E.A.T.
0010	495+51	- 496+38	LT	25	E.A.T.
0010	496+90	- 497+68	LT	25	E.A.T.
0010	498+49	- 499+18	RT	48	E.A.T.
0010	500+19	- 500+50	LT	27	E.A.T.
0010	525+18	- 526+72	LT	113	E.A.T.
0010	529+29	- 529+83	RT	97	E.A.T.
0010	535+48	- 536+15	RT	75	E.A.T.
0010	544+47	- 545+39	RT	112	E.A.T.
0010	546+77	- 548+35	LT	128	E.A.T.
0010	548+94	- 550+51	LT	133	E.A.T.
0010	559+95	- 561+44	RT	127	E.A.T.
0010	563+48	- 564+98	LT	129	E.A.T.
0010	570+77	- 572+41	RT	202	E.A.T.
0010	590+80	- 592+51	LT	292	E.A.T.
0010	590+34	- 592+59	RT	228	E.A.T.
0010	594+78	- 596+95	LT	185	E.A.T.
0010	594+90	- 596+85	RT	198	E.A.T.
0010	634+88	- 635+38	RT	60	E.A.T.
0010	634+88	- 635+97	LT	100	E.A.T.
0010	638+01	- 639+49	LT	63	E.A.T.
0010	638+96	- 639+63	RT	19	E.A.T.
0010	818+55	- 819+13	LT	27	E.A.T.

SUBTOTAL #2 = 3,277
+
SUBTOTAL #1 = 3,964
PROJECT TOTALS = 7,241

3

3

										PERMANENT SIGN SUPPORT SUMMARY									
										634.0614	634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814		
										POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS		
										WOOD	WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR		
										4" X 6"	4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2		
										14'	16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'		
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS	
0010	100	99+84	NB	Right	54 x 15	I2-2	County Line Name			1	1	-	-	-	-	-	-		
0010	101	107+31	NB	Right	48 x 39	J1-2				-	1	-	-	-	-	-	-		
0010	102	117+02	NB	Right	48 x 45	J13-2				-	1	-	-	-	-	-	-		
0010	103	117+02	NB	Right	30 x 36	I55-56	Adopt-A-Highway [Sponsor]			-	-	1	-	-	-	-	-		
0010	104	117+90	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	105	117+93	NB	Crossroad	48 x 45	J13-2				-	-	1	-	-	-	-	-		
0010	106	121+66	NB	Right	24 x 60	JV4-2				-	-	1	-	-	-	-	-		
0010	107	149+19	NB	Right	30 x 30	W8-14	Fallen Rocks			-	-	1	-	-	-	-	-		
0010	108	154+80	NB	Right	36 x 36	W3-5	Speed Limit _ Ahead [Arrow]			-	-	1	-	-	-	-	-		
0010	109	157+92	NB	Right	78 x 24	I2-3	Community Population Name Sign			-	2	-	-	-	-	-	-		
0010	111	161+08	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
0010	112	162+59	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	113	163+23	NB	Right	36 x 36	W3-5	Speed Limit _ Ahead [Arrow]			-	-	1	-	-	-	-	-		
0010	114	167+73	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
0010	116	175+00	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	117	177+51	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	118	179+14	NB	Right	36 x 36	W10-3	Side Road Tracks LEFT/RIGHT Side			-	1	-	-	-	-	-	-		
0010	119	180+88	NB	Right	24 x 39	J1-1				-	1	-	-	-	-	-	-		
0010	121	187+07	NB	Right	24 x 45	J13-1				-	1	-	-	-	-	-	-		
0010	122	187+59	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	123	189+18	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	124	190+45	NB	Right	24 x 60	JV4-2				-	-	1	-	-	-	-	-		
0010	125	191+10	NB	Right	18 x 24	R7-1L	No Parking Any Time [LA]			-	-	-	-	1	1	-	1		
0010	126	192+01	NB	Right	30 x 30	W8-14	Fallen Rocks			1	-	-	-	-	-	-	-		
0010	127	192+76	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	128	193+28	NB	Right	18 x 24	R7-1D	No Parking Any Time [DBA]			-	-	-	-	1	1	-	1		
0010	129	195+78	NB	Right	18 x 24	R7-1D	No Parking Any Time [DBA]			-	-	-	-	1	1	-	1		
0010	130	198+28	NB	Right	18 x 24	R7-1D	No Parking Any Time [DBA]			-	-	-	-	1	1	-	1		
0010	131	201+03	NB	Right	18 x 24	R7-1R	No Parking Any Time [RA]			-	-	-	-	1	1	-	1		
0010	132	202+29	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	133	206+83	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	134	210+89	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	136	223+73	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	137	225+57	NB	Right	72 x 24	D2-2	Distance/Destination sign			1	1	-	-	-	-	-	-		
0010	138	226+32	NB	Right	30 x 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-		
0010	139	228+21	NB	Right	48 x 36	J4-2				-	1	-	-	-	-	-	-		
0010	140	231+00	NB	Right	24 x 24	D6-4	Americas Byways			1	-	-	-	-	-	-	-		
0010	141	233+12	NB	Right	24 x 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
0010	142	244+05	NB	Right	24 x 39	J1-1				-	1	-	-	-	-	-	-		
0010	143	246+64	NB	Right	12 x 36	W5-52R	Clearance Striper Down Right			-	-	-	-	1	1	1	-		
0010	144	246+64	NB	Left	12 x 36	W5-52L	Clearance Striper Down Left			-	-	-	-	1	1	1	-		
0010	145	246+64	NB	Right	66 x 15	I2-2	Lake or River Name			1	1	-	-	-	-	-	-		
0010	146	253+76	NB	Right	24 x 45	J13-1				-	-	1	-	-	-	-	-		
0010	147	254+20	NB	Parking Lot	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	148	254+79	NB	Crossroad	30 x 30	R1-1	Stop			1	-	-	-	-	-	-	-		
SUBTOTAL #1 =										18	16	8	0	7	7	2	5		

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO: 84

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

3

										PERMANENT SIGN SUPPORT SUMMARY (CONTINUED)									
									634.0614		634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814		
									POSTS		POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS		
									WOOD		WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR		
									4" X 6"		4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2		
									14'		16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'		
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS	
0010	149	254+85	NB	Crossroad	48 X 45	J13-2			-	-		1	-	-	-	-	-		
0010	150	258+53	NB	Right	24 X 60	JV4-2			-	-		1	-	-	-	-	-		
0010	151	312+19	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	152	324+55	NB	Right	60 X 36	D5-63	Historical Marker [1/2] Mile		-	1		1	-	-	-	-	-		
0010	153	329+62	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	154	330+05	NB	Right	30 X 36	I55-56	Adopt-A-Highway [Sponsor]		-	1	-	-	-	-	-	-	-		
0010	155	342+19	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	156	348+80	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	157	350+91	NB	Right	60 X 36	D5-64L	Historical Marker (Left Arrow)		-	1		1	-	-	-	-	-		
0010	158	352+33	NB	Right	30 X 30	W1-2R	Right Curve		-	-		1	-	-	-	-	-		
0010	159	360+34	NB	Right	48 X 24	D5-61	Wayside [1/8] Mile		-	1	-	-	-	-	-	-	-		
0010	160	365+98	NB	Right	30 X 30	W1-2R	Right Curve		-	-		1	-	-	-	-	-		
0010	161	368+97	NB	Right	48 X 24	D5-62L	Wayside (LEFT Arrow)		-	1	-	-	-	-	-	-	-		
0010	162	393+36	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	163	410+18	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	164	430+15	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	165	443+95	NB	Right	24 X 39	J1-1			-	1	-	-	-	-	-	-	-		
0010	166	452+93	NB	Right	24 X 45	J13-1			-	-		1	-	-	-	-	-		
0010	167	454+22	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	168	454+25	NB	Crossroad	48 X 45	J13-2			-	-		1	-	-	-	-	-		
0010	169	455+91	NB	Right	48 X 36	J4-2			-	1	-	-	-	-	-	-	-		
0010	170	458+06	NB	Right	30 X 36	I55-56	Adopt-A-Highway [Sponsor]		-	1	-	-	-	-	-	-	-		
0010	171	459+86	NB	Right	24 X 24	D6-4	Americas Byways		-	1	-	-	-	-	-	-	-		
0010	172	461+74	NB	Right	30 X 30	W7-1	Hill		-	-		1	-	-	-	-	-		
0010	173	492+74	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	174	517+20	NB	Right	30 X 30	W1-2L	Left Curve		-	-		1	-	-	-	-	-		
0010	175	530+17	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	176	535+45	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	177	541+83	NB	Left	48 X 36	W14-3	No Passing Zone		-	1	-	-	-	-	-	-	-		
0010	178	580+35	NB	Right	30 X 30	W1-2R	Right Curve		-	-		1	-	-	-	-	-		
0010	179	586+14	NB	Right	36 X 36	W3-5	Speed Limit _ Ahead [Arrow]		-	-		1	-	-	-	-	-		
0010	180	587+01	NB	Right	36 X 36	S3-1	School Bus Stop Ahead		-	-		1	-	-	-	-	-		
0010	181	589+42	NB	Right	60 X 24	I2-3	Community Population Name Sign		-	2	-	-	-	-	-	-	-		
0010	182	590+56	NB	Right	30 X 36	I55-56	Adopt-A-Highway [Sponsor]		-	1	-	-	-	-	-	-	-		
0010	183	591+74	NB	Right	24 X 30	R2-1	Speed Limit _ MPH		-	1	-	-	-	-	-	-	-		
0010	184	597+05	NB	Right	24 X 30	R2-1	Speed Limit _ MPH		-	1	-	-	-	-	-	-	-		
0010	186	601+96	NB	Right	24 X 39	J1-1			-	1	-	-	-	-	-	-	-		
0010	187	604+47	NB	Right	36 X 36	W10-2	Cross Road Tracks LEFT/RIGHT Side		-	1	-	-	-	-	-	-	-		
0010	188	606+91	NB	Right	24 X 30	R2-1	Speed Limit _ MPH		-	1	-	-	-	-	-	-	-		
0010	189	611+60	NB	Right	24 X 45	J13-1			-	1	-	-	-	-	-	-	-		
0010	190	612+35	NB	Crossroad	30 X 30	R1-1	Stop		1	-	-	-	-	-	-	-	-		
0010	191	612+39	NB	Crossroad	48 X 45	J13-2			-	1	-	-	-	-	-	-	-		
0010	192	613+57	NB	Right	48 X 36	J4-2			-	1	-	-	-	-	-	-	-		
SUBTOTAL #2 =									7	26	13	0	0	0	0	0	0		

3

3

										PERMANENT SIGN SUPPORT SUMMARY (CONTINUED)									
										634.0614	634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814		
										POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS		
										WOOD	WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR		
										4" X 6"	4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2		
										14'	16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'		
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS	
0010	193	615+71	NB	Right	24 X 24	D6-4	America's Byways			1	-	-	-	-	-	-	-		
0010	194	617+42	NB	Right	24 X 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	195	626+48	NB	Right	24 X 30	R2-1	Speed Limit _ MPH			1	-	-	-	-	-	-	-		
0010	196	632+13	NB	Left	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-		
0010	197	632+44	NB	Crossroad	30 X 30	R1-1	Stop			-	1	-	-	-	-	-	-		
0010	198	632+96	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	199	635+51	NB	Right	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
0010	200	637+44	NB	Right	48 X 36	J4-2				-	1	-	-	-	-	-	-		
0010	201	639+16	NB	Right	24 X 60	JV4-2				-	-	1	-	-	-	-	-		
0010	202	695+68	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	203	696+37	NB	Right	30 X 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-		
0010	204	718+19	NB	Right	30 X 30	W11-8	Fire Station Truck Crossing Symbol			-	1	-	-	-	-	-	-		
0010	205	719+95	NB	Right	30 X 36	D9-52L	One Destination (Arrow)			-	1	-	-	-	-	-	-		
0010	207	726+87	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	208	734+05	NB	Right	24 X 39	J1-1				-	1	-	-	-	-	-	-		
0010	209	743+63	NB	Right	24 X 45	J13-1				-	-	1	-	-	-	-	-		
0010	210	744+58	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	211	744+61	NB	Crossroad	48 X 45	J13-2				-	-	1	-	-	-	-	-		
0010	212	747+13	NB	Right	60 X 36	D5-63	Historical Marker [1/2] Mile			-	1	1	-	-	-	-	-		
0010	213	749+07	NB	Right	24 X 60	JV4-2				-	-	1	-	-	-	-	-		
0010	214	774+60	NB	Right	60 X 36	D5-64R	Historical Marker (Right Arrow)			-	1	1	-	-	-	-	-		
0010	215	775+49	NB	wayside	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	216	776+42	NB	wayside	24 X 36	-	No Trucks over 4 Tons or Detached			1	-	-	-	-	-	-	-		
0010	217	778+66	NB	wayside	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	218	781+37	NB	Left	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-		
0010	219	798+90	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	220	813+60	NB	Left	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-		
0010	221	818+04	NB	Right	24 X 39	J1-1				-	1	-	-	-	-	-	-		
0010	222	822+59	NB	Right	48 X 57	J2-2				-	-	1	-	-	-	-	-		
0010	223	824+10	NB	Right	36 X 36	W3-1	Stop Ahead			-	-	1	-	-	-	-	-		
0010	224	827+47	NB	Right	78 X 54	D1-4	Four Destinations (Arrows) ***Special Occasion 0			-	-	1	1	-	-	-	-		
0010	225	831+61	NB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	226	832+54	NB	Right	96 X 57	J3-4				-	-	1	1	-	-	-	-		
0010	227	833+40	NB	Right	36 X 36	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	228	833+45	NB	Right	30 X 30	R5-1	Do Not Enter			1	-	-	-	-	-	-	-		
0010	300	99+79	SB	Left	54 X 15	I2-2	County Line Name			1	1	-	-	-	-	-	-		
0010	301	105+94	SB	wayside	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	302	107+15	SB	wayside	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-		
0010	303	113+16	SB	Left	24 X 60	JV4-2				-	-	1	-	-	-	-	-		
0010	304	118+59	SB	Left	48 X 45	J13-2				-	-	1	-	-	-	-	-		
0010	305	127+45	SB	Left	48 X 39	J1-2				-	-	1	-	-	-	-	-		
0010	306	161+12	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
0010	307	164+60	SB	Left	48 X 36	J4-2				-	1	-	-	-	-	-	-		
0010	308	166+18	SB	Left	78 X 36	D2-3	Destination/Distance			-	1	1	-	-	-	-	-		
0010	309	167+77	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-		
SUBTOTAL #3 =										17	18	14	2	0	0	0	0		

3

PERMANENT SIGN SUPPORT SUMMARY (CONTINUED)										634.0614	634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814		
										POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS		
										WOOD	WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR		
										4" X 6"	4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2		
										14'	16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'		
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS	
0010	310	179+94	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	-	1	-	-	-	-	-	-	-	-		
0010	311	184+21	SB	Crossroad	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	312	184+72	SB	Left	24 X 24	D6-4	America's Byways	1	-	-	-	-	-	-	-	-	-		
0010	313	187+21	SB	Crossroad	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	315	187+69	SB	Left	24 X 45	J13-1		-	1	-	-	-	-	-	-	-	-		
0010	316	188+65	SB	Left	36 X 36	W10-2	Side Road Tracks LEFT/RIGHT Side	-	1	-	-	-	-	-	-	-	-		
0010	317	190+33	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	1	-	-	-	-	-	-	-	-	-		
0010	318	190+71	SB	Crossroad	18 X 24	R7-5D	_Hour Parking	1	-	-	-	-	-	-	-	-	-		
0010	319	190+71	SB	Crossroad	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	320	191+87	SB	Left	24 X 39	J1-1		-	1	-	-	-	-	-	-	-	-		
0010	322	198+14	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	1	-	-	-	-	-	-	-	-	-		
0010	324	206+84	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	-	1	-	-	-	-	-	-	-	-		
0010	325	210+95	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	-	1	-	-	-	-	-	-	-	-		
0010	326	215+45	SB	Left	36 X 36	W3-5	Speed Limit _ Ahead [Arrow]	-	-	1	-	-	-	-	-	-	-		
0010	327	219+36	SB	Left	30 X 30	W8-14	Fallen Rocks	-	-	1	-	-	-	-	-	-	-		
0010	328	223+09	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	-	1	-	-	-	-	-	-	-	-		
0010	329	228+68	SB	Right	48 X 36	W14-3	No Passing Zone	-	1	-	-	-	-	-	-	-	-		
0010	330	233+15	SB	Left	24 X 30	R2-1	Speed Limit _ MPH	-	1	-	-	-	-	-	-	-	-		
0010	331	235+77	SB	Left	78 X 24	I2-3	Community Population Name Sign	-	1	1	-	-	-	-	-	-	-		
0010	333	238+12	SB	Left	36 X 36	W3-5	Speed Limit _ Ahead [Arrow]	-	-	1	-	-	-	-	-	-	-		
0010	334	250+39	SB	Right	12 X 36	W5-52L	Clearance Striper Down Left	-	-	-	-	-	1	1	1	-	-		
0010	335	250+39	SB	Left	12 X 36	W5-52R	Clearance Striper Down Right	-	-	-	-	-	1	1	1	-	-		
0010	336	250+40	SB	Left	66 X 15	I2-2	River Name	1	1	-	-	-	-	-	-	-	-		
0010	337	251+24	SB	Left	24 X 60	JV4-2		-	-	1	-	-	-	-	-	-	-		
0010	338	254+43	SB	Left	30 X 36	I55-56	Adopt-A-Highway [Sponsor]	-	1	-	-	-	-	-	-	-	-		
0010	339	255+01	SB	Left	24 X 45	J13-1		-	-	1	-	-	-	-	-	-	-		
0010	340	265+62	SB	Left	24 X 39	J1-1		-	1	-	-	-	-	-	-	-	-		
0010	341	329+31	SB	Left	30 X 36	I55-56	Adopt-A-Highway [Sponsor]	-	1	-	-	-	-	-	-	-	-		
0010	342	342+23	SB	Right	48 X 36	W14-3	No Passing Zone	-	1	-	-	-	-	-	-	-	-		
0010	343	352+33	SB	wayside	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	344	355+75	SB	wayside	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	345	356+91	SB	Left	60 X 36	D5-64R	Historical Marker (Right Arrow)	-	1	1	-	-	-	-	-	-	-		
0010	347	368+98	SB	wayside	24 X 30	R6-2R	One way RIGHT Arrow	1	-	-	-	-	-	-	-	-	-		
0010	348	368+99	SB	wayside	30 X 30	R1-1	Stop	1	-	-	-	-	-	-	-	-	-		
0010	349	369+11	SB	wayside	18 X 18	R55-51	No Overnight Camping	1	-	-	-	-	-	-	-	-	-		
0010	350	369+86	SB	Left	48 X 24	D5-62R	wayside (RIGHT Arrow)	-	1	-	-	-	-	-	-	-	-		
0010	351	372+80	SB	Left	30 X 30	W1-2L	Left Curve	-	-	1	-	-	-	-	-	-	-		
0010	352	380+32	SB	Left	60 X 36	D5-63	Historical Marker [1/2] Mile	-	1	1	-	-	-	-	-	-	-		
0010	353	389+94	SB	Left	48 X 24	D5-61	wayside [1/2] Mile	-	1	-	-	-	-	-	-	-	-		
0010	354	396+08	SB	Right	48 X 36	W14-3	No Passing Zone	-	1	-	-	-	-	-	-	-	-		
0010	355	396+12	SB	Left	30 X 30	W1-2L	Left Curve	-	-	1	-	-	-	-	-	-	-		
0010	356	430+45	SB	Right	48 X 36	W14-3	No Passing Zone	-	1	-	-	-	-	-	-	-	-		
SUBTOTAL #4 =										13	21	10	0	2	2	2	0		

3

PERMANENT SIGN SUPPORT SUMMARY (CONTINUED)										634.0614	634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814	
										POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	
										WOOD	WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR	
										4" X 6"	4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2	
										14'	16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'	
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS
0010	357	447+58	SB	Left	24 X 24	D6-4	America's Byways			-	1	-	-	-	-	-	-	
0010	358	447+58	SB	Left	30 X 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-	
0010	359	450+29	SB	Left	30 X 30	W7-1	Hill			-	-	1	-	-	-	-	-	
0010	360	451+91	SB	Left	48 X 36	J4-2				-	1	-	-	-	-	-	-	
0010	361	453+30	SB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	362	454+15	SB	Left	24 X 45	J13-1				-	-	1	-	-	-	-	-	
0010	363	464+15	SB	Left	24 X 39	J1-1				-	1	-	-	-	-	-	-	
0010	364	475+23	SB	Right	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-	
0010	365	496+38	SB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	366	530+88	SB	Left	30 X 30	W1-2R	Right Curve			-	-	1	-	-	-	-	-	
0010	367	538+13	SB	Right	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-	
0010	368	583+95	SB	Left	24 X 24	D6-4	America's Byways			-	1	-	-	-	-	-	-	
0010	369	585+87	SB	Left	90 X 24	D2-2	Destination/Distance			-	1	1	-	-	-	-	-	
0010	370	588+51	SB	Left	48 X 36	J4-2				-	1	-	-	-	-	-	-	
0010	371	590+49	SB	Left	30 X 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-	
0010	372	591+75	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	373	597+09	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	375	605+53	SB	Left	30 X 30	W1-2L	Left Curve			-	-	1	-	-	-	-	-	
0010	376	606+93	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	377	609+27	SB	Left	24 X 60	JV4-2				-	-	1	-	-	-	-	-	
0010	378	611+23	SB	Left	48 X 36	J4-2				-	-	1	-	-	-	-	-	
0010	379	611+80	SB	Crossroad	30 X 30	R1-1	Stop			-	1	-	-	-	-	-	-	
0010	380	612+87	SB	Left	24 X 45	J13-1				-	1	-	-	-	-	-	-	
0010	381	617+00	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	382	618+16	SB	Left	36 X 36	W10-2	Cross Road Tracks LEFT/RIGHT Side			-	-	1	-	-	-	-	-	
0010	383	621+34	SB	Left	24 X 39	J1-1				-	1	-	-	-	-	-	-	
0010	384	626+46	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	386	635+49	SB	Left	24 X 30	R2-1	Speed Limit _ MPH			-	1	-	-	-	-	-	-	
0010	387	639+54	SB	Left	60 X 24	I2-3	Community Population Name Sign			-	2	-	-	-	-	-	-	
0010	388	642+58	SB	Left	36 X 36	W3-5	Speed Limit _ Ahead [Arrow]			-	-	1	-	-	-	-	-	
0010	389	658+07	SB	Left	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	390	659+48	SB	Right	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-	
0010	391	694+62	SB	Left	30 X 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-	
0010	392	726+42	SB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	393	733+36	SB	Left	30 X 36	D9-52R	One Destination (Arrow)			-	1	-	-	-	-	-	-	
0010	395	735+00	SB	Right	48 X 36	W14-3	No Passing Zone			-	1	-	-	-	-	-	-	
0010	396	735+01	SB	Left	30 X 30	W11-8	Fire Station Truck Crossing Symbol			-	-	1	-	-	-	-	-	
0010	397	736+14	SB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	398	739+95	SB	Left	24 X 60	JV4-2				-	-	1	-	-	-	-	-	
0010	399	744+64	SB	Crossroad	30 X 30	R1-1	Stop			1	-	-	-	-	-	-	-	
0010	400	744+83	SB	Left	24 X 45	J13-1				-	-	1	-	-	-	-	-	
0010	401	754+20	SB	Left	24 X 39	J1-1				-	1	-	-	-	-	-	-	
SUBTOTAL #5 =										6	26	12	0	0	0	0	0	

3

PERMANENT SIGN SUPPORT SUMMARY (CONTINUED)

										634.0614	634.0616	634.0618	634.0620	634.0801	634.0803	634.0812	634.0814			
										POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS	POSTS		
										WOOD	WOOD	WOOD	WOOD	TUBULAR	TUBULAR	TUBULAR	TUBULAR			
										4" X 6"	4" X 6"	4" X 6"	4" X 6"	STEEL	STEEL	STEEL	STEEL - 2x2			
										14'	16'	18'	20'	2" X 2" = 1.5'	2" X 2" - 3'	2" X 2" - 12'	2" X 2" - 14'			
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS		
0010	402	764+37	SB	Crossroad	30 x 30	R1-1	Stop			-	1	-	-	-	-	-	-			
0010	403	778+62	SB	Left	60 x 36	D5-64L	Historical Marker (Left Arrow)			-	1	1	-	-	-	-	-			
0010	404	784+50	SB	Crossroad	30 x 30	R1-1	Stop			-	1	-	-	-	-	-	-			
0010	405	797+74	SB	Crossroad	30 x 30	R1-1	Stop			-	1	-	-	-	-	-	-			
0010	406	798+20	SB	Crossroad	30 x 30	W14-1	Dead End			1	-	-	-	-	-	-	-			
0010	407	806+18	SB	Left	60 x 36	D5-63	Historical Marker [1/2] Mile			-	1	1	-	-	-	-	-			
0010	408	814+48	SB	Left	72 x 24	D2-2	Destination/Distance			-	2	-	-	-	-	-	-			
0010	409	817+12	SB	Left	24 x 24	D6-4	America's Byways			-	1	-	-	-	-	-	-			
0010	410	819+85	SB	Left	48 x 36	J4-2				-	1	-	-	-	-	-	-			
0010	411	828+91	SB	Left	30 x 36	I55-56	Adopt-A-Highway [Sponsor]			-	1	-	-	-	-	-	-			
0010	412	830+94	SB	On Ramp-Right Side	30 x 30	R5-1	Do Not Enter			-	1	-	-	-	-	-	-			
0010	414	831+29	SB	Left	36 x 36	W4-1	Merging Traffic Symbol (Right)			-	-	1	-	-	-	-	-			
0010	415	832+22	SB	On Ramp-Right Side	36 x 24	R5-1A	Wrong Way			-	1	-	-	-	-	-	-			
0010	416	832+44	SB	On Ramp-Left Side	36 x 24	R5-1A	Wrong Way			-	1	-	-	-	-	-	-			
										SUBTOTAL #6 =		1	13	3	0	0	0	0	0	
										+										
										SUBTOTAL #1 =		18	16	8	0	7	7	2	5	
										+										
										SUBTOTAL #2 =		7	26	13	0	0	0	0	0	
										+										
										SUBTOTAL #3 =		17	18	14	2	0	0	0	0	
										+										
										SUBTOTAL #4 =		13	21	10	0	2	2	2	0	
										+										
										SUBTOTAL #5 =		6	26	12	0	0	0	0	0	
										PROJECT TOTALS =		62	120	60	2	9	9	4	5	

3

3

PERMANENT SIGN SUMMARY															
CATEGORY	SIGN			LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS		
	NO.	STA	DIR.		in	x in			SIGNS REFLECTIVE TYPE II SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH			
0010	100	99+84	NB	Right	54	X 15	I2-2	County Line Name (Pierce Co.)	5.63	-	1	2			
0010	101	107+31	NB	Right	48	X 39	J1-2		13.00	-	-	-			
0010	A	107+31	NB	Right	21	X 15	M2-1	Junction Marker	-	-	1	1			
0010	B	107+31	NB	Right	24	X 24	M1-5A	County Marker (AA)	-	-	1	-			
0010	C	107+31	NB	Right	21	X 15	MR2-1	Junction Marker	-	-	1	-			
0010	D	107+31	NB	Right	24	X 24	MR1-99	Rustic Road Marker	-	-	1	-			
0010	E	107+31	NB	Right	24	X 8	MR4-53	Route Number Panel (R-51)	-	-	1	-			
0010	102	117+02	NB	Right	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-			
0010	A	117+02	NB	Right	24	X 24	M1-5A	County Marker (AA)	-	-	1	1			
0010	B	117+02	NB	Right	21	X 21	M 6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	C	117+02	NB	Right	24	X 24	MR1-99	Rustic Road Marker	-	-	1	-			
0010	D	117+02	NB	Right	21	X 21	M 6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	103	117+02	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Smiling Pelican Bakeshop]	7.50	-	1	1			
0010	104	117+90	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	105	117+93	NB	Crossroad	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-			
0010	A	117+93	NB	Crossroad	24	X 24	M1-6	State Route Marker (35)	-	-	1	1			
0010	B	117+93	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	C	117+93	NB	Crossroad	24	X 24	M1-96	Great River Road Marker	-	-	1	-			
0010	D	117+93	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	106	121+66	NB	Right	24	X 60	JV4-2		10.00	-	-	-			
0010	A	121+66	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1			
0010	B	121+66	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	121+66	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-			
0010	107	149+19	NB	Right	30	X 30	w8-14	Fallen Rocks	6.25	-	-	-			
0010	A	149+19	NB	Right	36	X 36	w8-54	Watch for Fallen Rocks	-	-	1	1			
0010	108	154+80	NB	Right	36	X 36	w3-5	Speed Limit _ Ahead (45)	9.00	-	1	1			
0010	109	157+92	NB	Right	78	X 24	I2-3	Community Population Name Sign	13.00	-	1	2			
0010	110	157+92	NB	Right	21	X 15		Local Sign	-	-	1	-	Remove Only, Mounted w/ Sign 109		
0010	111	161+08	NB	Right	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1			
0010	112	162+59	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	113	163+23	NB	Right	36	X 36	w3-5	Speed Limit _ Ahead (30)	9.00	-	-	-			
0010	113A	164+19	NB	Right	36	X 36	w3-5	Speed Limit _ Ahead (30)	-	-	1	1			
0010	114	167+73	NB	Right	24	X 30	R2-1	Speed Limit (30)	5.00	-	1	1			
0010	115	173+44	NB	Right	24	X 30		Local No Parking Sign	-	-	1	1	Remove Only		
0010	116	175+00	NB	Right	24	X 30	R2-1	Speed Limit (30)	5.00	-	-	-			
0010	A	177+19	NB	Right	24	X 30	R2-1	Speed Limit (30)	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	117	177+51	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	118	179+14	NB	Right	36	X 36	w10-3	Side Road Tracks LEFT/RIGHT Side	9.00	-	1	1			
0010	119	180+88	NB	Right	24	X 39	J1-1		6.50	-	-	-			
0010	A	180+88	NB	Right	21	X 15	M2-1	Junction Marker	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	B	180+88	NB	Right	24	X 24	M1-5A	County Marker (S)	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	120	180+88	NB	Right	18	X 24		Local Sign	-	-	1	-	Remove Only, Mounted w/ Sign 119 A&B		
0010	121	187+07	NB	Right	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-			
0010	A	187+07	NB	Right	24	X 24	M1-5A	County Marker (S)	-	-	1	1			
0010	B	187+07	NB	Right	21	X 21	M6-1	Arrow - RIGHT, LEFT, OR AHEAD	-	-	1	-			
0010	122	187+59	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	123	189+18	NB	Right	24	X 30	R2-1	Speed Limit (30)	5.00	-	-	-			
0010	A	187+07	NB	Right	24	X 30	R2-1	Speed Limit (30)	-	-	1	-	Ex. Sign Mounted w/ Signs 121 A&B		
SUBTOTAL #1 (NB) =									167.10	0	38	21			
STATE PROJECT NO: 1721-01-61							HWY: STH 35		COUNTY: PIERCE			MISCELLANEOUS QUANTITIES		SHEET NO: 90	E

3

PERMANENT SIGN SUMMARY (CONTINUED)															
CATEGORY	SIGN			LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS		
	NO.	STA	DIR.		in	x in			REFLECTIVE	MOVING	REMOVING	REMOVING			
									TYPE II	SIGNS	SIGNS	SMALL SIGN			
									SF	TYPE II	TYPE II	TYPE II	SUPPORTS		
										EACH	EACH	EACH			
0010	124	190+45	NB	Right	24	X 60	JV4-2		10.00	-	-	-			
0010	A	190+93	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	B	190+93	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	C	190+93	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-	Ex. Sign Mounted on Power Pole		
0010	125	191+10	NB	Right	18	X 24	R7-1L	No Parking Any Time [LA]	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	126	192+01	NB	Right	30	X 30	w8-14	Fallen Rocks	6.25	-	-	-			
0010	A	192+01	NB	Right	36	X 36	w8-54	Watch for Fallen Rocks	-	-	1	1			
0010	127	192+76	NB	Right	24	X 30	R2-1	Speed Limit (30)	5.00	-	1	1			
0010	128	193+28	NB	Right	18	X 24	R7-1D	No Parking Any Time [DBA]	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	129	195+78	NB	Right	18	X 24	R7-1D	No Parking Any Time [DBA]	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	130	198+28	NB	Right	18	X 24	R7-1D	No Parking Any Time [DBA]	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	131	201+03	NB	Right	18	X 24	R7-1R	No Parking Any Time [RA]	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	132	202+29	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	133	206+83	NB	Right	24	X 30	R2-1	Speed Limit (30)	5.00	-	1	1			
0010	134	210+89	NB	Right	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1			
0010	135	222+46	NB	Crossroad	39	X 24	D1-1	Destination Sign [RA]	-	-	1	-	Remove Only, Mounted w/ Sign 136		
0010	136	223+73	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	137	225+57	NB	Right	72	X 24	D2-2	Distance/Destination Sign	12.00	-	1	2			
0010	138	226+32	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Maiden Rock Rockets 4-H Club]	7.50	-	1	1			
0010	139	228+21	NB	Right	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-			
0010	A	225+57	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 137		
0010	B	225+57	NB	Right	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	Ex. Sign Mounted w/ Sign 137		
0010	C	225+57	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 137		
0010	D	225+57	NB	Right	24	X 24	M1-96	Great River Road Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 137		
0010	140	231+00	NB	Right	24	X 24	D6-4	Americas Byways	4.00	-	-	-			
0010	A	228+68	NB	Right	24	X 24	D6-4	Americas Byways	-	-	1	1	Ex. Sign Mounted w/ Sign 332		
0010	141	233+12	NB	Right	24	X 30	R2-1	Speed Limit (55)	5.00	-	1	1			
0010	142	244+05	NB	Right	24	X 39	J1-1		6.50	-	-	-			
0010	A	244+05	NB	Right	21	X 15	M2-1	Junction Marker	-	-	1	1			
0010	B	244+05	NB	Right	24	X 24	M1-5A	County Marker (A)	-	-	1	-			
0010	143	246+64	NB	Right	12	X 36	w5-52R	Clearance Striper Down Right	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	144	246+64	NB	Left	12	X 36	w5-52L	Clearance Striper Down Left	3.00	-	1	1	Ex. Sign Mounted on Steel Post		
0010	145	246+64	NB	Right	66	X 15	I3-1	Lake/River Name (Rush River)	6.88	-	1	1			
0010	146	253+76	NB	Right	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-			
0010	A	253+76	NB	Right	24	X 24	M1-5A	County Marker (A)	-	-	1	1			
0010	B	253+76	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	147	254+20	NB	Parking Lot	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	148	254+79	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	149	254+85	NB	Crossroad	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-			
0010	A	254+85	NB	Crossroad	24	X 24	M1-6	State Route Marker (35)	-	-	1	1			
0010	B	254+85	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	C	254+85	NB	Crossroad	24	X 24	M1-96	Great River Road Marker	-	-	1	-			
0010	D	254+85	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
SUBTOTAL #2 (NB) =									149.35	0	36	24			
STATE PROJECT NO: 1721-01-61					HWY: STH 35			COUNTY: PIERCE			MISCELLANEOUS QUANTITIES			SHEET NO: 91	E

3

3

PERMANENT SIGN SUMMARY (CONTINUED)															
CATEGORY	SIGN			LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS		
	NO.	STA	DIR.		REFLECTIVE	TYPE II			SIGN	TYPE II	REMOVING	REMOVING			
														SF	EACH
					in	x in									
0010	150	258+53	NB	Right	24	X 60	JV4-2		10.00	-	-	-			
0010	A	258+53	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1			
0010	B	258+53	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	258+53	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-			
0010	151	312+19	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	152	324+55	NB	Right	60	X 36	D5-63	Historical Marker [1/2] Mile	15.00	-	1	2			
0010	153	329+62	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	154	330+05	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Maiden Rock Area Community Association]	7.50	-	1	1			
0010	155	342+19	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	156	348+80	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	157	350+91	NB	Right	60	X 36	D5-64L	Historical Marker (Left Arrow)	15.00	-	1	2			
0010	158	352+33	NB	Right	30	X 30	W1-2R	Right Curve	6.25	-	1	1			
0010	159	360+34	NB	Right	48	X 24	D5-61	wayside [1/8] Mile	8.00	-	1	1			
0010	160	365+98	NB	Right	30	X 30	W1-2R	Right Curve	6.25	-	1	1			
0010	161	368+97	NB	Right	48	X 24	D5-62L	wayside (LEFT Arrow)	8.00	-	1	1			
0010	162	393+36	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	163	410+18	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	164	430+15	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	165	443+95	NB	Right	24	X 39	J1-1		6.50	-	-	-			
0010	A	443+95	NB	Right	21	X 15	M 2-1	Junction Marker	-	-	1	1			
0010	B	443+95	NB	Right	24	X 24	M1-5A	County Marker (D)	-	-	1	-			
0010	166	452+93	NB	Right	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-			
0010	A	452+93	NB	Right	24	X 24	M1-5A	County Marker (D)	-	-	1	1			
0010	B	452+93	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	167	454+22	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	168	454+25	NB	Crossroad	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-			
0010	A	454+25	NB	Crossroad	24	X 24	M1-6	State Route Marker (35)	-	-	1	1			
0010	B	454+25	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	C	454+25	NB	Crossroad	24	X 24	M1-96	Great River Road Marker	-	-	1	-			
0010	D	454+25	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	169	455+91	NB	Right	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-			
0010	A	455+91	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1			
0010	B	455+91	NB	Right	24	X 24	M1-6	State Route Marker (35)	-	-	1	-			
0010	C	455+91	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-			
0010	D	455+91	NB	Right	24	X 24	M1-96	Great River Road Marker	-	-	1	-			
0010	170	458+06	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Hiawatha National Bank]	7.50	-	1	1			
0010	171	459+86	NB	Right	24	X 24	D6-4	Americas Byways	4.00	-	-	-			
0010	A	458+06	NB	Right	24	X 24	D6-4	Americas Byways	-	-	1	1			
0010	172	461+74	NB	Right	30	X 30	W7-1	Hill	6.25	-	1	1			
0010	173	492+74	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	174	517+20	NB	Right	30	X 30	W1-2L	Left Curve	6.25	-	-	-	New Sign		
0010	A	517+20	NB	Right	18	X 18	W13-1	Advisory Speed (Yellow) 50 M.P.H.	2.25	-	-	-	New Sign, To Be Mounted w/ Sign 177		
0010	175	530+17	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	176	535+45	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	177	541+83	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	178	580+35	NB	Right	30	X 30	W1-2R	Right Curve	6.25	-	1	1			
SUBTOTAL #3 (NB) =									216.58	0	38	30			
STATE PROJECT NO: 1721-01-61							HWY: STH 35		COUNTY: PIERCE			MISCELLANEOUS QUANTITIES		SHEET NO: 92	E

3

3

PERMANENT SIGN SUMMARY (CONTINUED)													
CATEGORY	SIGN		DIR.	LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS
	NO.	STA			in	x in			REFLECTIVE TYPE II SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	179	586+14	NB	Right	36	X 36	W3-5	Speed Limit _ Ahead (45)	9.00	-	1	1	
0010	180	587+01	NB	Right	36	X 36	S3-1	School Bus Stop Ahead	9.00	-	-	-	
0010	A	587+01	NB	Right	30	X 30	S3-1	School Bus Stop Ahead	-	-	1	1	
0010	181	589+42	NB	Right	60	X 24	I2-3	Community Population Name Sign	10.00	-	1	2	
0010	182	590+56	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Bay City Community Club]	7.50	-	1	1	
0010	183	591+74	NB	Right	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1	
0010	184	597+05	NB	Right	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1	
0010	185	597+80	NB	Left	24	X 36		Local Sign	-	-	1	1	Remove Only
0010	186	601+96	NB	Right	24	X 39	J1-1		6.50	-	-	-	
0010	A	601+96	NB	Right	21	X 15	M 2-1	Junction Marker	-	-	1	1	
0010	B	601+96	NB	Right	24	X 24	M1-5A	County Marker (EE)	-	-	1	-	
0010	187	604+47	NB	Right	36	X 36	W10-2	Cross Road Tracks LEFT/RIGHT Side	9.00	-	1	1	To Be Mounted w/ Sign 379
0010	188	606+91	NB	Right	24	X 30	R2-1	Speed Limit (40)	5.00	-	1	1	
0010	189	611+60	NB	Right	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-	
0010	A	611+60	NB	Right	24	X 24	M1-5A	County Marker (EE)	-	-	1	1	
0010	B	611+60	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-	
0010	190	612+35	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1	
0010	191	612+39	NB	Crossroad	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-	
0010	A	612+39	NB	Crossroad	24	X 24	M1-6	State Route Marker (35)	-	-	1	1	
0010	B	612+39	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-	
0010	C	612+39	NB	Crossroad	24	X 24	M1-96	Great River Road Marker	-	-	1	-	
0010	D	612+39	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-	
0010	192	613+57	NB	Right	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-	
0010	A	613+57	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1	
0010	B	613+57	NB	Right	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	
0010	193	615+71	NB	Right	24	X 24	D6-4	America's Byways	4.00	-	-	-	
0010	A	615+71	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1	
0010	B	615+71	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-	
0010	C	615+71	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-	
0010	194	617+42	NB	Right	24	X 30	R2-1	Speed Limit (40)	5.00	-	1	1	
0010	195	626+48	NB	Right	24	X 30	R2-1	Speed Limit (40)	5.00	-	1	1	
0010	196	632+13	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1	
0010	197	632+44	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1	
0010	198	632+96	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1	
0010	199	635+51	NB	Right	24	X 30	R2-1	Speed Limit (55)	5.00	-	1	1	
0010	200	637+44	NB	Right	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-	
0010	A	637+44	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1	
0010	B	637+44	NB	Right	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	
0010	201	639+16	NB	Right	24	X 60	JV4-2		10.00	-	-	-	
0010	A	639+16	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	1	
0010	B	639+16	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-	
0010	C	639+16	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-	
0010	202	695+68	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1	
SUBTOTAL #4 (NB) =									168.22	0	35	25	

3

3

3

PERMANENT SIGN SUMMARY (CONTINUED)															
CATEGORY	SIGN		DIR.	LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS		
	NO.	STA			in	x in			SIGNS REFLECTIVE TYPE II SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH			
0010	203	696+37	NB	Right	30	X 36	I55-56	Adopt-A-Highway [Civil Air Patrol]	7.50	-	1	1	Remove Only, Mounted w/ Sign 212		
0010	204	718+19	NB	Right	30	X 30	W11-8	Fire Station Truck Crossing Symbol	6.25	-	1	1			
0010	205	719+95	NB	Right	30	X 36	D9-52L	One Destination (Arrow)	7.50	-	1	2			
0010	206	719+95	NB	Right	24	X 30	D9-1A	Telephone Symbol [LA]	-	-	1	-			
0010	207	726+87	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	208	734+05	NB	Right	24	X 39	J1-1		6.50	-	-	-			
0010	A	734+05	NB	Right	21	X 15	M 2-1	Junction Marker	-	-	1	1			
0010	B	734+05	NB	Right	24	X 24	M 1-5A	County Marker [C]	-	-	1	-			
0010	209	743+63	NB	Right	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-			
0010	A	743+63	NB	Right	24	X 24	M1-5A	County Marker [C]	-	-	1	1			
0010	B	743+63	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	210	744+58	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	211	744+61	NB	Crossroad	48	X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-			
0010	A	744+61	NB	Crossroad	24	X 24	M1-6	State Route Marker (35)	-	-	1	1			
0010	B	744+61	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	C	744+61	NB	Crossroad	24	X 24	M1-96	Great River Road Marker	-	-	1	-			
0010	D	744+61	NB	Crossroad	21	X 21	M6-4	Directional Arrow Left - Right	-	-	1	-			
0010	212	747+13	NB	Right	60	X 36	D5-63	Historical Marker [1/2] Mile	15.00	-	1	2			
0010	213	749+07	NB	Right	24	X 60	JV4-2		10.00	-	-	-			
0010	A	749+07	NB	Right	24	X 12	M3-3	NORTH Cardinal Route Marker	-	-	1	1			
0010	B	749+07	NB	Right	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	749+07	NB	Right	24	X 24	D6-4	America's Byways	-	-	1	-			
0010	214	774+60	NB	Right	60	X 36	D5-64R	Historical Marker (Right Arrow)	15.00	-	1	2			
0010	215	775+49	NB	Wayside	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	216	776+42	NB	Wayside	24	X 36	-	No Trucks over 4 Tons or Detached	-	1	-	1			
0010	217	778+66	NB	Wayside	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	218	781+37	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	219	798+90	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	220	813+60	NB	Left	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	221	818+04	NB	Right	24	X 39	J1-1		6.50	-	-	-			
0010	A	818+04	NB	Right	21	X 15	M 2-1	Junction Marker	-	-	1	1			
0010	B	818+04	NB	Right	24	X 24	M1-4	US Highway Route Marker (63)	-	-	1	-			
0010	222	822+59	NB	Right	48	X 57	J2-2	Advanced Route Turn Assembly	19.00	-	-	-			
0010	A	822+59	NB	Right	24	X 12	M 3-3	SOUTH Cardinal Route Marker	-	-	1	1			
0010	B	822+59	NB	Right	24	X 24	M1-4	US Highway Route Marker (63)	-	-	1	-			
0010	C	822+59	NB	Right	21	X 21	M5-1L	Advanced Arrow - Left or Right	-	-	1	-			
0010	D	822+59	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-			
0010	E	822+59	NB	Right	24	X 24	M1-4	US Highway Route Marker (63)	-	-	1	-			
0010	F	822+59	NB	Right	21	X 21	M5-1R	Advanced Arrow - Left or Right	-	-	1	-			
0010	223	824+10	NB	Right	36	X 36	W3-1	Stop Ahead	9.00	-	-	-			
0010	A	824+10	NB	Right	36	X 36		Stop Ahead	-	-	1	1			
0010	224	827+47	NB	Right	78	X 54	D1-4	Four Destinations (Arrows) ***Special Occasion 0	29.25	-	1	2			
0010	225	831+61	NB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
SUBTOTAL #5 (NB) =									197.08	1	35	26			
STATE PROJECT NO: 1721-01-61					HWY: STH 35			COUNTY: PIERCE			MISCELLANEOUS QUANTITIES		SHEET NO: 94		E

3

PERMANENT SIGN SUMMARY (CONTINUED)													
CATEGORY	SIGN		DIR.	LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS
	NO.	STA			in	x in			SIGNS REFLECTIVE TYPE II SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	226	832+54	NB	Right	96	X 57	J3-4	Route Turn Assembly	38.00	-	-	-	
0010	A	832+54	NB	Right	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	2	
0010	B	832+54	NB	Right	24	X 24	M1-4	US Highway Route Marker (63)	-	-	1	-	
0010	C	832+54	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-	
0010	D	832+54	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	
0010	E	832+54	NB	Right	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	
0010	F	832+54	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-	
0010	G	832+54	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	
0010	H	832+54	NB	Right	24	X 24	M1-96	Great River Road Marker	-	-	1	-	
0010	I	832+54	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-	
0010	J	832+54	NB	Right	24	X 12	M3-1	NORTH Cardinal Route Marker	-	-	1	-	
0010	K	832+54	NB	Right	24	X 24	M1-4	US Highway Route Marker (63)	-	-	1	-	
0010	L	832+54	NB	Right	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-	
0010	227	833+40	NB	Right	36	X 36	R1-1	Stop	7.46	-	1	1	
0010	228	833+45	NB	Right	30	X 30	R5-1	Do Not Enter	6.25	-	1	1	
0010	229	834+50	NB	Island	18	X 6	R1-3P	All way	0.75	-	1	-	Mounted on Existing Traffic signal Pole
0010	230	834+50	NB	Island	36	X 36	R1-1	Stop	7.46	-	1	-	Mounted on Existing Traffic signal Pole
SUBTOTAL #6 (NB) =									59.92	0	16	4	
+													
SUBTOTAL #1 (NB) =									167.10	0	38	21	
+													
SUBTOTAL #2 (NB) =									149.35	0	36	24	
+													
SUBTOTAL #3 (NB) =									216.58	0	38	30	
+													
SUBTOTAL #4 (NB) =									168.22	0	35	25	
+													
SUBTOTAL #5 (NB) =									197.08	1	35	26	
TOTAL (NB) =									958.24	1	198	130	
</													

3

3

3

PERMANENT SIGN SUMMARY (CONTINUED)													
CATEGORY	SIGN		DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS	
	NO.	STA						REFLECTIVE TYPE II SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH		
0010	300	99+79	SB	Left	54 X 15	I2-2	County Line Name (Pepin Co.)	5.63	-	1	2		
0010	301	105+94	SB	Wayside	30 X 30	R1-1	Stop	5.18	-	1	1		
0010	302	107+15	SB	Wayside	30 X 30	R1-1	Stop	5.18	-	1	1		
0010	303	113+16	SB	Left	24 X 60	JV4-2		10.00	-	-	-		
0010	A	113+16	SB	Left	24 X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	1		
0010	B	113+16	SB	Left	24 X 24	M1-96	Great River Road	-	-	1	-		
0010	C	113+16	SB	Left	24 X 24	D6-4	America's Byways	-	-	1	-		
0010	304	118+59	SB	Left	48 X 45	J13-2	Route Turn Assembly without Cardinals	15.00	-	-	-		
0010	A	118+59	SB	Left	24 X 24	M1-5A	County Marker (AA)	-	-	1	1		
0010	B	118+59	SB	Left	21 X 21	M 6-1	Arrow - Left, Right, or Ahead	-	-	1	-		
0010	C	118+59	SB	Left	24 X 24	MR1-99	Rustic Route Marker	-	-	1	-		
0010	D	118+59	SB	Left	21 X 21	MR 6-1	Arrow - Right, Left, or Ahead - Rustic Road - Brown	-	-	1	-		
0010	305	127+45	SB	Left	48 X 39	J1-2		13.00	-	-	-		
0010	A	127+45	SB	Left	21 X 15	M2-1	Junction Marker	-	-	1	1		
0010	B	127+45	SB	Left	24 X 24	M1-5A	County Marker (AA)	-	-	1	-		
0010	C	127+45	SB	Left	21 X 15	MR2-1	Junction Marker - Rustic Road - Brown	-	-	1	-		
0010	D	127+45	SB	Left	24 X 24	MR1-99	Rustic Route Marker - Brown	-	-	1	-		
0010	E	127+45	SB	Left	24 X 8	MR4-53	Rustic Road Route Number Panel - Brown	-	-	1	-		
0010	306	161+12	SB	Left	24 X 30	R2-1	Speed Limit (55)	5.00	-	1	1		
0010	307	164+60	SB	Left	48 X 36	J4-2	Reassurance Assembly	12.00	-	-	-		
0010	A	164+60	SB	Left	24 X 12	M 3-3	SOUTH Cardinal Route Marker	-	-	1	2		
0010	B	164+60	SB	Left	24 X 24	M1-6	State Route Marker (35)	-	-	1	-		
0010	C	164+60	SB	Left	24 X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-		
0010	D	164+60	SB	Left	24 X 24	M1-96	Great River Road	-	-	1	-		
0010	308	166+18	SB	Left	78 X 36	D2-3	Destination/Distance	19.50	-	-	-		
0010	A	164+60	SB	Left	78 X 36	D2-3	Destination/Distance	-	-	1	-	Ex. Sign Mounted w/ Signs 308 A-D	
0010	309	167+77	SB	Left	24 X 30	R2-1	Speed Limit (45)	5.00	-	1	1		
0010	310	179+94	SB	Left	24 X 30	R2-1	Speed Limit (30)	5.00	-	1	1		
0010	311	184+21	SB	Crossroad	30 X 30	R1-1	Stop	5.18	-	1	1		
0010	312	184+72	SB	Left	24 X 24	D6-4	America's Byways	4.00	-	1	1		
0010	313	187+21	SB	Crossroad	30 X 30	R1-1	Stop	5.18	-	1	1		
0010	314	187+21	SB	Crossroad		D1-1	Destination Sign (Blue)	-	-	1	-	Ex. Sign Mounted w/ Sign 313	
0010	315	187+69	SB	Left	24 X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-		
0010	A	187+69	SB	Left	24 X 24	M1-5A	County Marker (S)	-	-	1	1		
0010	B	187+69	SB	Left	21 X 21	M6-1	Arrow - RIGHT, LEFT, OR AHEAD	-	-	1	-		
0010	316	188+65	SB	Left	36 X 36	W10-2	Side Road Tracks LEFT/RIGHT Side	9.00	-	1	1		
0010	317	190+33	SB	Left	24 X 30	R2-1	Speed Limit (30)	5.00	-	-	-		
0010	A	187+69	SB	Left	24 X 30	R2-1	Speed Limit (30)	-	-	1	-	Ex. Sign Mounted w/ Signs 316 A&B	
0010	318	190+71	SB	Crossroad	18 X 24	R7-5D	2 Hour Parking	5.00	-	1	1		
0010	319	190+71	SB	Crossroad	30 X 30	R1-1	Stop	5.18	-	1	1		
0010	320	191+87	SB	Left	24 X 39	J1-1		6.50	-	-	-		
0010	A	191+87	SB	Left	21 X 15	M2-1	Junction Marker	-	-	1	1		
0010	B	191+87	SB	Left	24 X 24	M1-5A	County Marker (S)	-	-	1	-		
0010	321	191+87	SB	Left	18 X 24		Local Sign	-	-	1	-	Remove Only, Mounted w/ Signs 321 A&B	
SUBTOTAL #1 (SB) =								153.03	0	36	20		
STATE PROJECT NO: 1721-01-61						HWY: STH 35		COUNTY: PIERCE		MISCELLANEOUS QUANTITIES		SHEET NO: 96	E

3

PERMANENT SIGN SUMMARY (CONTINUED)															
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS			
								SIGNS	MOVING	REMOVING	REMOVING				
								REFLECTIVE TYPE II SF	SIGNS TYPE II EACH	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH				
0010	322	198+14	SB	Left	24 x 30	R2-1	Speed Limit _ MPH	5.00	-	1	-	Ex. Sign Mounted on Power Pole Remove Only			
0010	323	203+77	SB	Left	24 x 30		Local No Parking Sign	-	-	1	1				
0010	324	206+84	SB	Left	24 x 30	R2-1	Speed Limit (30)	5.00	-	1	1				
0010	325	210+95	SB	Left	24 x 30	R2-1	Speed Limit (30)	5.00	-	1	1				
0010	326	215+45	SB	Left	36 x 36	W3-5	Speed Limit _ Ahead (30)	9.00	-	-	-	Ex. Sign Mounted w/ Sign 140A			
0010	A	214+06	SB	Left	24 x 30	R2-5A	Reduced Speed Ahead	-	-	1	1				
0010	B	214+06	SB	Left	18 x 18	W13-1	30 M.P.H.	-	-	1	-				
0010	327	219+36	SB	Left	30 x 30	W8-14	Fallen Rocks	6.25	-	-	-				
0010	A	219+36	SB	Left	36 x 36	W8-54	Watch for Fallen Rocks	-	-	1	1	Remove Only, Mounted w/ Sign 334			
0010	328	223+09	SB	Left	24 x 30	R2-1	Speed Limit (45)	5.00	-	1	1				
0010	329	228+68	SB	Right	48 x 36	W14-3	No Passing Zone	6.00	-	1	-				
0010	330	233+15	SB	Left	24 x 30	R2-1	Speed Limit (45)	5.00	-	1	1				
0010	331	235+77	SB	Left	78 x 24	I2-3	Community Population Name Sign	13.00	-	1	2	Remove Only, Mounted w/ Sign 334			
0010	332	235+77	SB	Left	21 x 15		Local Sign	-	-	1	-				
0010	333	238+12	SB	Left	36 x 36	W3-5	Speed Limit _ Ahead (45)	9.00	-	-	-				
0010	A	238+12	SB	Left	24 x 30	R2-5A	Reduced Speed Ahead	-	-	1	1				
0010	B	238+12	SB	Left	18 x 18	W13-1	45 M.P.H.	-	-	1	-	Ex. Sign Mounted on Steel Post Ex. Sign Mounted on Steel Post			
0010	334	250+39	SB	Right	12 x 36	W5-52L	Clearance Striper Down Left	3.00	-	1	1				
0010	335	250+39	SB	Left	12 x 36	W5-52R	Clearance Striper Down Right	3.00	-	1	1				
0010	336	250+40	SB	Left	66 x 15	I3-1	Lake/River Name (Rush River)	6.88	-	1	1				
0010	337	251+24	SB	Left	24 x 60	JV4-2		10.00	-	-	-	Ex. Sign Mounted on Steel Post			
0010	A	251+24	SB	Left	24 x 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	1				
0010	B	251+24	SB	Left	24 x 24	M1-96	Great River Road	-	-	1	-				
0010	C	251+24	SB	Left	24 x 24	D6-4	America's Byways	-	-	1	-				
0010	338	254+43	SB	Left	30 x 36	I55-56	Adopt-A-Highway [Smiling Pelican Bakeshop]	7.50	-	1	1	Ex. Sign Mounted on Steel Post			
0010	339	255+01	SB	Left	24 x 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-				
0010	A	255+01	SB	Left	24 x 24	M1-5A	County Marker (A)	-	-	1	1				
0010	B	255+01	SB	Left	21 x 21	M6-1	Arrow -Left, Right, or Ahead	-	-	1	-				
0010	340	265+62	SB	Left	24 x 39	J1-1		6.50	-	-	-	Ex. Sign Mounted on Steel Post			
0010	A	265+62	SB	Left	21 x 15	M2-1	Junction Marker	-	-	1	1				
0010	B	265+62	SB	Left	24 x 24	M1-5A	County Marker (A)	-	-	1	-				
0010	341	329+31	SB	Left	30 x 36	I55-56	Adopt-A-Highway [Maiden Rock Rockets 4-H Club]	7.50	-	1	1				
0010	342	342+23	SB	Right	48 x 36	W14-3	No Passing Zone	6.00	-	1	1	Ex. Sign Mounted on Steel Post			
0010	343	352+33	SB	Wayside	30 x 30	R1-1	Stop	5.18	-	1	1				
0010	344	355+75	SB	Wayside	30 x 30	R1-1	Stop	5.18	-	1	1				
0010	345	356+91	SB	Left	60 x 36	D5-64R	Historical Marker (Right Arrow)	15.00	-	1	2				
0010	346	357+64	SB	Left	30 x 9	I3-1	Lake Name (Lake Pepin)	-	-	1	1	Ex. Sign Mounted on Steel Post			
0010	347	368+98	SB	Wayside	24 x 30	R6-2R	One Way RIGHT Arrow	5.00	-	1	1				
0010	348	368+99	SB	Wayside	30 x 30	R1-1	Stop	5.18	-	1	1				
0010	349	369+11	SB	Wayside	18 x 18	R55-51	No Overnight Camping	2.25	-	1	1				
0010	350	369+86	SB	Left	48 x 24	D5-62R	Wayside (RIGHT Arrow)	8.00	-	1	1	Ex. Sign Mounted on Steel Post			
0010	351	372+80	SB	Left	30 x 30	W1-2L	Left Curve	6.25	-	1	1				
0010	352	380+32	SB	Left	60 x 36	D5-63	Historical Marker [1/2] Mile	15.00	-	1	2				
0010	353	389+94	SB	Left	48 x 24	D5-61	Wayside [1/2] Mile	8.00	-	1	1				
0010	354	396+08	SB	Right	48 x 36	W14-3	No Passing Zone	6.00	-	1	1	Ex. Sign Mounted on Steel Post			
SUBTOTAL #2 (SB) =								207.17	0	39	33				
STATE PROJECT NO: 1721-01-61						HWY: STH 35			COUNTY: PIERCE			MISCELLANEOUS QUANTITIES		SHEET NO: 97	E

3

3

3

PERMANENT SIGN SUMMARY (CONTINUED)															
CATEGORY	SIGN		DIR.	LOC.	SIZE		SIGN CODE	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS		
	NO.	STA			in	x in			SIGNS	MOVING	REMOVING	REMOVING			
									REFLECTIVE TYPE II SF	SIGNS TYPE II EACH	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH			
0010	355	396+12	SB	Left	30	X 30	W1-2L	Left Curve	6.25	-	1	1			
0010	356	430+45	SB	Right	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	357	445+00	SB	Left	24	X 24	D6-4	America's Byways	4.00	-	-	-			
0010	A	447+58	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-			
0010	B	447+58	SB	Left	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	447+58	SB	Left	24	X 24	D6-4	America's Byways	-	-	1	1			
0010	358	447+58	SB	Left	30	X 36	I55-56	Adopt-A-Highway [Maiden Rock Area Community Association]	7.50	-	1	1			
0010	359	450+29	SB	Left	30	X 30	W7-1	Hill	6.25	-	1	1			
0010	360	451+91	SB	Left	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-			
0010	A	451+91	SB	Left	24	X 12	M 3-3	SOUTH Cardinal Route Marker	-	-	1	1			
0010	B	451+91	SB	Left	24	X 24	M1-6	State Route Marker (35)	-	-	1	-			
0010	361	453+30	SB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	362	454+15	SB	Left	24	X 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-			
0010	A	454+15	SB	Left	24	X 24	M1-5A	County Marker (D)	-	-	1	1			
0010	B	454+15	SB	Left	21	X 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-			
0010	363	464+15	SB	Left	24	X 39	J1-1		6.50	-	-	-			
0010	A	464+15	SB	Left	21	X 15	M2-1	Junction Marker	-	-	1	1			
0010	B	464+15	SB	Left	24	X 24	M1-5A	County Marker (D)	-	-	1	-			
0010	364	475+23	SB	Right	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	365	496+38	SB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
0010	366	530+88	SB	Left	30	X 30	W1-2R	Right Curve	6.25	-	-	-	New Sign		
0010	A	530+88	SB	Left	18	X 18	W13-1	Advisory Speed (Yellow) 50 M.P.H	2.25	-	-	-	New Sign, To Be Mounted w/ Sign 371		
0010	367	538+13	SB	Right	48	X 36	W14-3	No Passing Zone	6.00	-	1	1			
0010	368	583+95	SB	Left	24	X 24	D6-4	America's Byways	4.00	-	-	-			
0010	A	583+95	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-			
0010	B	583+95	SB	Left	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	583+95	SB	Left	24	X 24	D6-4	America's Byways	-	-	1	1			
0010	369	585+87	SB	Left	90	X 24	D2-2	Destination/Distance	15.00	-	1	2			
0010	370	588+51	SB	Left	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-			
0010	A	585+87	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 374		
0010	B	585+87	SB	Left	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	Ex. Sign Mounted w/ Sign 374		
0010	371	590+49	SB	Left	30	X 36	I55-56	Adopt-A-Highway [Hiawatha National Bank]	7.50	-	1	1			
0010	372	591+75	SB	Left	24	X 30	R2-1	Speed Limit (55)	5.00	-	1	1			
0010	373	597+09	SB	Left	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1			
0010	374	604+47	SB	Right	48	X 36	W14-3	No Passing Zone	6.00	-	1	-	To Mounted w/ Sign 191		
0010	375	605+53	SB	Left	30	X 30	W1-2L	Left Curve	6.25	-	1	1			
0010	376	606+93	SB	Left	24	X 30	R2-1	Speed Limit (45)	5.00	-	1	1			
0010	377	609+27	SB	Left	24	X 60	JV4-2		10.00	-	-	-			
0010	A	609+27	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	1			
0010	B	609+27	SB	Left	24	X 24	M1-96	Great River Road	-	-	1	-			
0010	C	609+27	SB	Left	24	X 24	D6-4	America's Byways	-	-	1	-			
0010	378	611+23	SB	Left	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-			
0010	A	611+23	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	1			
0010	B	611+23	SB	Left	24	X 24	M1-6	State Route Marker (35)	-	-	1	-			
0010	379	611+80	SB	Crossroad	30	X 30	R1-1	Stop	5.18	-	1	1			
SUBTOTAL #3 (SB) =									179.79	0	35	23			
STATE PROJECT NO: 1721-01-61							HWY: STH 35		COUNTY: PIERCE			MISCELLANEOUS QUANTITIES		SHEET NO: 98	E

3

3

PERMANENT SIGN SUMMARY (CONTINUED)

								637.0202	638.2102	638.2602	638.3000		
								SIGNS	MOVING	REMOVING	REMOVING		
								REFLECTIVE	SIGNS	SIGNS	SMALL SIGN		
								TYPE II	TYPE II	TYPE II	SUPPORTS		
CATEGORY	SIGN NO.	STA	DIR.	LOC.	SIZE in x in	SIGN CODE	DESCRIPTION	SF	EACH	EACH	EACH	REMARKS	
0010	380	612+87	SB	Left	24 x 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-		
0010	A	612+87	SB	Left	24 x 24	M1-5A	County Marker (EE)	-	-	1	1		
0010	B	612+87	SB	Left	21 x 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-		
0010	381	617+00	SB	Left	24 x 30	R2-1	Speed Limit (40)	5.00	-	1	1		
0010	382	618+16	SB	Left	36 x 36	W10-2	Cross Road Tracks LEFT/RIGHT Side	9.00	-	1	1		
0010	383	621+34	SB	Left	24 x 39	J1-1	Junction Marker County Marker (EE)	6.50	-	-	-		
0010	A	621+34	SB	Left	21 x 15	M2-1		-	-	1	1		
0010	B	621+34	SB	Left	24 x 24	M1-5A		-	-	1	-		
0010	384	626+46	SB	Left	24 x 30	R2-1	Speed Limit (40)	5.00	-	1	1		
0010	385	633+15	SB	Left	24 x 36		Local Sign	-	-	1	1	Remove Only	
0010	386	635+49	SB	Left	24 x 30	R2-1	Speed Limit (40)	5.00	-	1	1		
0010	387	639+54	SB	Left	60 x 24	I2-3	Community Population Name Sign	10.00	-	1	2		
0010	388	642+58	SB	Left	36 x 36	W3-5	Speed Limit _ Ahead (40)	9.00	-	-	-		
0010	A	642+58	SB	Left	24 x 30	R2-5A	Reduced Speed Ahead	-	-	1	1		
0010	B	642+58	SB	Left	18 x 18	W13-1	40 M.P.H.	-	-	1	-		
0010	389	658+07	SB	Left	30 x 30	R1-1	Stop	5.18	-	1	1		
0010	390	659+48	SB	Right	48 x 36	W14-3	No Passing Zone	6.00	-	1	1		
0010	391	694+62	SB	Left	30 x 36	I55-56	Adopt-A-Highway [Bay City Community Club]	7.50	-	1	1		
0010	392	726+42	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	1	1		
0010	393	733+36	SB	Left	30 x 36	D9-52R	One Destination (Arrow)	7.50	-	1	2		
0010	394	733+36	SB	Left	24 x 30	D9-1A	Telephone Symbol [RA]	-	-	1	-	Remove Only, Mounted w/ Sign 401	
0010	395	735+00	SB	Right	48 x 36	W14-3	No Passing Zone	6.00	-	-	-	New Sign	
0010	396	735+01	SB	Left	30 x 30	W11-8	Fire Station Truck Crossing Symbol	6.25	-	1	1		
0010	397	736+14	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	-	-	New Sign	
0010	398	739+95	SB	Left	24 x 60	JV4-2	SOUTH Cardinal Route Marker Great River Road America's Byways	10.00	-	-	-		
0010	A	739+95	SB	Left	24 x 12	M3-3		-	-	1	1		
0010	B	739+95	SB	Left	24 x 24	M1-96		-	-	1	-		
0010	C	739+95	SB	Left	24 x 24	D6-4		-	-	1	-		
0010	399	744+64	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	-	-	New Sign	
0010	400	744+83	SB	Left	24 x 45	J13-1	Route Turn Assembly without Cardinals	7.50	-	-	-		
0010	A	744+83	SB	Left	24 x 24	M1-5A	County Marker [C]	-	-	1	1		
0010	B	744+83	SB	Left	21 x 21	M6-1	Arrow - Left, Right, or Ahead	-	-	1	-		
0010	401	754+20	SB	Left	24 x 39	J1-1	Junction Marker County Marker [C]	6.50	-	-	-		
0010	A	754+20	SB	Left	21 x 15	M2-1		-	-	1	1		
0010	B	754+20	SB	Left	24 x 24	M1-5A		-	-	1	-		
0010	402	764+37	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	1	1		
0010	403	778+62	SB	Left	60 x 36	D5-64L	Historical Marker (Left Arrow)	15.00	-	1	2		
0010	404	784+50	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	-	-	New Sign	
0010	405	797+74	SB	Crossroad	30 x 30	R1-1	Stop	5.18	-	1	1		
0010	406	798+20	SB	Crossroad	30 x 30	W14-1	Dead End	6.25	-	1	1		
0010	407	806+18	SB	Left	60 x 36	D5-63	Historical Marker [1/2] Mile	15.00	-	1	2		
0010	408	814+48	SB	Left	72 x 24	D2-2	Destination/Distance	12.00	-	-	-		
0010	A	817+12	SB	Left	72 x 24	D2-2	Destination/Distance	-	-	1	2		
SUBTOTAL #4 (SB) =								198.76	0	32	29		

3

3

PERMANENT SIGN SUMMARY (CONTINUED)

CATEGORY	SIGN		DIR.	LOC.	SIZE		SIGN	DESCRIPTION	637.0202	638.2102	638.2602	638.3000	REMARKS
	NO.	STA			in	x in			SIGNS REFLECTIVE TYPE II SF	SIGNS MOVING TYPE II EACH	SIGNS REMOVING TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	409	817+12	SB	Left	24	X 24	D6-4	America's Byways	4.00	-	-	-	
0010	A	817+12	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 417 A
0010	B	817+12	SB	Left	24	X 24	M1-96	Great River Road	-	-	1	-	Ex. Sign Mounted w/ Sign 417 A
0010	C	817+12	SB	Left	24	X 24	D6-4	America's Byways	-	-	1	-	Ex. Sign Mounted w/ Sign 417 A
0010	D	817+12	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-	Ex. Sign Mounted w/ Sign 417 A
0010	E	817+12	SB	Left	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	Ex. Sign Mounted w/ Sign 417 A
0010	410	819+85	SB	Left	48	X 36	J4-2	Reassurance Assembly	12.00	-	-	-	
0010	A	831+99	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	1	
0010	B	831+99	SB	Left	24	X 24	M1-6	State Route Marker (35)	-	-	1	-	
0010	C	831+99	SB	Left	24	X 12	M3-3	SOUTH Cardinal Route Marker	-	-	1	-	
0010	D	831+99	SB	Left	24	X 24	M1-96	Great River Road	-	-	1	-	
0010	411	828+91	SB	Left	30	X 36	I55-56	Adopt-A-Highway [Civil Air Patrol]	7.50	-	1	1	
0010	412	830+94	SB	Ramp-Right Side	30	X 30	R5-1	Do Not Enter	6.25	-	1	1	
0010	413	830+94	SB	Ramp-Right Side	24	X 24	R3-2	No Left Turn Symbol	4.00	-	1	-	Ex. Sign Mounted w/ Sign 421
0010	414	831+29	SB	Left	36	X 36	W4-1	Merging Traffic Symbol (Right)	6.25	-	1	1	
0010	415	832+22	SB	Ramp-Right Side	36	X 24	R5-1A	Wrong Way	6.00	-	1	1	
0010	416	832+44	SB	Ramp-Left Side	36	X 24	R5-1A	Wrong Way	6.00	-	1	1	
SUBTOTAL #5 (SB) =									52.00	0	15	6	
+													
SUBTOTAL #1 (SB) =									153.03	0	36	20	
+													
SUBTOTAL #2 (SB) =									207.17	0	39	33	
+													
SUBTOTAL #3 (SB) =									179.79	0	35	23	
+													
SUBTOTAL #4 (SB) =									198.76	0	32	29	
TOTAL (SB) =									790.75	0	157	111	
+													
TOTAL (NB) =									958.24	1	198	130	
PROJECT TOTALS =									1748.99	1	355	241	

3

FIELD OFFICE TYPE B (PROJECT) 01. 1721-01-61

642.5001				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010		PROJECT	1	
PROJECT TOTALS =			1	

TRAFFIC CONTROL DRUMS AND LIGHTS

					TRAFFIC CONTROL DRUMS 643.0300		TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715		REMARKS
CATEGORY	STATION	TO	STATION	LOCATION	EACH	DAY	EACH	DAY	
0010	102+18	-	118+20	LT	40	600	10	150	B-47-120
0010				UNDISTRIBUTED	50	2200	-	-	
PROJECT TOTALS =						2,800		150	

TRAFFIC CONTROL BARRICADES TYPE III AND LIGHTS

					TRAFFIC CONTROL BARRICADES TYPE III 643.0420		TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705		REMARKS
CATEGORY	STATION	LOCATION	EACH	DAY	EACH	DAY			
0010	106+10	LT	3	45	4	60			TO CLOSE REST AREA DURING B-47-120 STRUCTURE WORK.
0010	107+50	LT	3	45	4	60			
0010	111+30	LT	1	15	-	-			
PROJECT TOTALS =				105		120			

PAVEMENT MARKING EPOXY 8-INCH

					646.0126		REMARKS
CATEGORY	STATION	TO	STATION	LOCATION	LF		
0010	612+87	-	613+87	LEFT	100		WABASH ST. R.T.L.
0010	659+04	-	660+64	LEFT	160		135TH AVE. R.T.L.
0010	727+35	-	729+65	LEFT	230		717TH ST. R.T.L.
0010	765+35	-	766+35	LEFT	100		747TH ST. R.T.L.
0010	785+61	-	789+09	LEFT	348		760TH ST. R.T.L.
0010	824+53	-	831+21	LEFT	1,372		USH 63 RAMP GORE
0010	832+36	-	833+40	RIGHT	148		USH 63/STH 35 INTERSECTION MEDIAN
PROJECT TOTALS =					2,458		

TRAFFIC CONTROL (PROJECT) 01. 1721-01-61

643.0100				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010		PROJECT	1	
PROJECT TOTALS =			1	

PAVEMENT MARKING PARKING STALL EPOXY

					647.0656		REMARKS
CATEGORY	STATION	TO	STATION	LOCATION	LF		
0010	106+29	-	107+23	RIGHT	144		WAYSIDE PARKING STALLS
0010	106+82	-	106+92	RIGHT	80		WAYSIDE NO PARKING AREA
0010	251+24	-	253+75	RIGHT	468		WAYSIDE PARKING STALLS
0010	367+05	-	368+34	LEFT	349		WAYSIDE PARKING STALLS
0010	367+37	-	367+57	LEFT	106		WAYSIDE NO PARKING AREA
0010	776+07	-	777+45	RIGHT	185		WAYSIDE PARKING STALLS
PROJECT TOTALS =					1,332		

PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH

					647.0803		REMARKS
CATEGORY	STATION	LOCATION	LF				
0010	228+78	LEFT & RIGHT	12				
0010	235+38	LEFT & RIGHT	12				
0010	241+98	LEFT & RIGHT	12				
0010	248+58	LEFT & RIGHT	12				
0010	255+18	LEFT & RIGHT	12				
PROJECT TOTALS =					60		

3

3

3

PAVEMENT MARKING EPOXY 4-INCH							TRAFFIC CONTROL SIGNS									
646.0106							643.0900									
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS	CATEGORY	STATION	DIR	LOCATION	DESCRIPTION	SIGN CODE	EACH	DAY	REMARKS	
0010	99+23	-	117+10	RT	1,790	WHITE EDGELINE	0010	-	-	CTH AA	ROAD WORK AHEAD	W20-1	1	110		
0010	99+23	-	183+90	LT	8,470	WHITE EDGELINE	0010	-	-	GREEN ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	118+00	-	167+90	RT	4,990	WHITE EDGELINE	0010	-	-	CHESTNUT ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	205+30	-	369+00	LT	16,370	WHITE EDGELINE	0010	-	-	CTH S	ROAD WORK AHEAD	W20-1	1	110		
0010	223+80	-	253+20	RT	2,940	WHITE EDGELINE	0010	-	-	PARK ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	253+20	-	253+80	RT	20	WHITE EDGELINE (DASHED)	0010	-	-	LAKE ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	255+10	-	328+90	RT	7,380	WHITE EDGELINE	0010	-	-	2ND ST. W	ROAD WORK AHEAD	W20-1	1	110		
0010	329+80	-	348+10	RT	1,830	WHITE EDGELINE	0010	-	-	385TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	349+10	-	409+50	RT	6,040	WHITE EDGELINE	0010	-	-	CTH AA	ROAD WORK AHEAD	W20-1	1	110		
0010	369+60	-	370+20	LT	20	WHITE EDGELINE (DASHED)	0010	-	-	452ND ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	370+20	-	453+10	LT	8,290	WHITE EDGELINE	0010	-	-	113TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	410+50	-	452+60	RT	4,210	WHITE EDGELINE	0010	-	-	125TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	452+60	-	453+10	RT	10	WHITE EDGELINE (DASHED)	0010	-	-	530TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	454+10	-	454+50	LT	10	WHITE EDGELINE (DASHED)	0010	-	-	CTH D	ROAD WORK AHEAD	W20-1	1	110		
0010	454+50	-	529+80	RT	7,530	WHITE EDGELINE	0010	-	-	560TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	454+50	-	496+10	LT	4,160	WHITE EDGELINE	0010	-	-	570TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	497+20	-	611+60	LT	11,440	WHITE EDGELINE	0010	-	-	590TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	530+50	-	534+80	RT	430	WHITE EDGELINE	0010	-	-	WABASH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	535+50	-	611+00	RT	7,550	WHITE EDGELINE	0010	-	-	CTH EE	ROAD WORK AHEAD	W20-1	1	110		
0010	611+00	-	611+50	RT	10	WHITE EDGELINE (DASHED)	0010	-	-	150TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	612+90	-	657+80	LT	4,490	WHITE EDGELINE	0010	-	-	135TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	635+20	-	694+40	RT	5,920	WHITE EDGELINE	0010	-	-	150TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	659+00	-	726+10	LT	6,710	WHITE EDGELINE	0010	-	-	715TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	694+40	-	694+80	RT	10	WHITE EDGELINE (DASHED)	0010	-	-	717TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	696+10	-	725+50	RT	2,940	WHITE EDGELINE	0010	-	-	AIRPORT RD.	ROAD WORK AHEAD	W20-1	1	110		
0010	725+50	-	726+00	RT	10	WHITE EDGELINE (DASHED)	0010	-	-	730TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	727+10	-	742+80	RT	1,570	WHITE EDGELINE	0010	-	-	CTH C	ROAD WORK AHEAD	W20-1	1	110		
0010	727+30	-	736+20	LT	890	WHITE EDGELINE	0010	-	-	747TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	737+10	-	737+60	LT	10	WHITE EDGELINE (DASHED)	0010	-	-	760TH ST.	ROAD WORK AHEAD	W20-1	1	110		
0010	737+60	-	743+50	LT	590	WHITE EDGELINE	0010	-	-	770TH ST.	ROAD WORK AHEAD	W20-1	2	220		
0010	742+80	-	743+60	RT	20	WHITE EDGELINE (DASHED)	0010	-	-	170TH AVE.	ROAD WORK AHEAD	W20-1	1	110		
0010	744+70	-	745+20	LT	10	WHITE EDGELINE (DASHED)	0010	-	-	USH 63	ROAD WORK AHEAD	W20-1	2	220		
0010	744+90	-	797+40	RT	5,250	WHITE EDGELINE	0010	79+23	NB	RIGHT	ROAD WORK AHEAD	W20-1	1	110		
0010	745+20	-	764+00	LT	1,880	WHITE EDGELINE	0010	89+23	NB	RIGHT	ROAD WORK 1000 FT	W20-1	1	110		
0010	765+35	-	784+30	LT	1,895	WHITE EDGELINE	0010	94+23	NB	RIGHT	ROAD WORK 500 FT	W20-1	1	110		
0010	766+35	-	767+72	LT	30	WHITE EDGELINE (DASHED)	0010	94+23	SB	LEFT	END ROAD WORK	G20-2A	1	110		
0010	785+60	-	797+50	LT	1,190	WHITE EDGELINE	0010	99+23	NB	RIGHT	ROAD WORK NEXT 14 MILES	G20-1	1	110		
0010	797+40	-	797+80	RT	10	WHITE EDGELINE (DASHED)	0010	833+00	SB	LEFT	ROAD WORK NEXT 14 MILES	G20-1	1	110		
0010	798+70	-	799+20	LT	10	WHITE EDGELINE (DASHED)	0010	838+00	NB	RIGHT	END ROAD WORK	G20-2A	1	110		
0010	799+20	-	830+70	RT	3,150	WHITE EDGELINE	0010	838+00	SB	LEFT	ROAD WORK 500 FT	W20-1	1	110		
0010	799+20	-	817+50	LT	1,830	WHITE EDGELINE	0010	843+00	SB	LEFT	ROAD WORK 1000 FT	W20-1	1	110		
0010	831+30	-	833+00	LT	170	WHITE EDGELINE	0010	853+00	SB	LEFT	ROAD WORK AHEAD	W20-1	1	110		
0010	831+90	-	833+00	RT	110	WHITE EDGELINE	0010	-	-	UNDISTRIBUTED	NO CENTER STRIPE	W8-12	4	328	USE AS NEEDED PER PAVEMENT MARKING OPERATIONS MANUAL p3-2.	
0010	10+40 'A'	-	11+10.0 'A'	CL	140	DOUBLE YELLOW										
0010	10+45 'H'	-	11+10 'H'	CL	130	DOUBLE YELLOW										
0010	10+60 'L'	-	10+80 'L'	CL	40	DOUBLE YELLOW										
0010	10+60 'L'	-	10+80 'L'	RT	20	WHITE EDGELINE										
0010	817+47	-	832+10	USH 63 RAMP	1,480	WHITE EDGELINE										
0010	831+28	-	832+24	USH 63 RAMP	110	YELLOW EDGELINE										
PROJECT TOTALS = 134,105																

TRAFFIC CONTROL SIGNS (CONTINUED)

643.0900

CATEGORY	STATION	DIR	LOCATION	DESCRIPTION	SIGN CODE	EACH	DAY	REMARKS
0010	92+18	NB	RIGHT	MAX WIDTH _ FT - BRIDGE CONSTRUCTION	W12-52	1	15	B-47-120
0010	97+18	NB	RIGHT	SHOULDER WORK	W21-5	1	15	B-47-120
0010	102+18	NB	RIGHT	SINGLE REVERSE CURVE (1 LANE) RIGHT	W24-1R	1	15	B-47-120
0010	102+18	NB	RIGHT	ADVISORY SPEED (45 M.P.H.)	W01-4	1	15	B-47-120
0010	106+10	NB	LEFT	WAYSIDE CLOSED	R55-58	1	15	B-47-120
0010	107+50	NB	LEFT	WAYSIDE CLOSED	R55-58	1	15	B-47-120
0010	109+28	NB	RIGHT	CLEARANCE STRIPER DOWN LEFT	W5-52R	1	15	B-47-120
0010	109+44	NB	LEFT	CLEARANCE STRIPER DOWN RIGHT	W5-52L	1	15	B-47-120
0010	109+44	SB	LEFT	RIGHT REVERSE CURVE	W01-4R	1	15	B-47-120
0010	110+84	NB	RIGHT	LEFT REVERSE CURVE	W01-4L	1	15	B-47-120
0010	110+84	SB	RIGHT	CLEARANCE STRIPER DOWN RIGHT	W5-52L	1	15	B-47-120
0010	110+96	SB	LEFT	CLEARANCE STRIPER DOWN LEFT	W5-52R	1	15	B-47-120
0010	111+30	SB	LEFT	NIGHT ARROW SINGLE	W01-6	1	15	B-47-120
0010	118+20	SB	LEFT	SINGLE REVERSE CURVE (1 LANE) LEFT	W24-1L	1	15	B-47-120
0010	118+20	SB	LEFT	ADVISORY SPEED (45 M.P.H.)	W01-4	1	15	B-47-120
0010	123+20	SB	LEFT	RIGHT SHOULDER CLOSED	W21-5A	1	15	B-47-120
0010	128+20	SB	LEFT	ROAD WORK 1500 FT	W20-1	1	15	B-47-120
0010	133+20	SB	LEFT	MAX WIDTH _ FT - BRIDGE CONSTRUCTION	W12-52	1	15	B-47-120
0010	143+20	SB	LEFT	ROAD WORK AHEAD	W20-1	1	15	B-47-120

SUBTOTAL #2 =

285

+

SUBTOTAL #1 =

5,168

PROJECT TOTALS =

5,453

REMOVING PAVEMENT MARKINGS

646.0600

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	107+18	-	113+20	CL	1,204	DOUBLE YELLOW @ B-47-120
0010	107+18	-	113+20	RT	602	WHITE EDGELINE @ B-47-120

PROJECT TOTALS =

1,806

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

647.0566

CATEGORY	STATION	LOCATION	LF	REMARKS
0010	10+40 'A'	CTH AA	15	
0010	10+46 'H'	CTH A	18	
0010	833+50.0	RIGHT	21	RIGHT TURN LANE
0010	833+55	MAINLINE	12	

PROJECT TOTALS =

65

PAVEMENT MARKING SAME DAY EPOXY 4-INCH

646.0406

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	99+23	-	218+00	CL	23,750	DOUBLE YELLOW
0010	218+00	-	228+70	CL	1,340	NB DASHED, SB SOLID YELLOW
0010	228+70	-	312+20	CL	2,090	DASHED YELLOW
0010	312+20	-	325+90	CL	1,710	SB DASHED, NB SOLID YELLOW
0010	325+90	-	331+70	CL	1,160	DOUBLE YELLOW
0010	331+70	-	342+20	CL	1,310	NB DASHED, SB SOLID YELLOW
0010	342+20	-	352+90	CL	1,340	SB DASHED, NB SOLID YELLOW
0010	352+90	-	384+90	CL	6,400	DOUBLE YELLOW
0010	384+90	-	393+40	CL	1,060	NB DASHED, SB SOLID YELLOW
0010	393+40	-	396+10	CL	540	DOUBLE YELLOW
0010	396+10	-	404+20	CL	1,010	SB DASHED, NB SOLID YELLOW
0010	404+20	-	419+70	CL	3,100	DOUBLE YELLOW
0010	419+70	-	430+10	CL	1,300	NB DASHED, SB SOLID YELLOW
0010	430+10	-	430+40	CL	60	DOUBLE YELLOW
0010	430+40	-	440+10	CL	1,210	SB DASHED, NB SOLID YELLOW
0010	440+10	-	465+00	CL	4,980	DOUBLE YELLOW
0010	465+00	-	475+20	CL	1,280	NB DASHED, SB SOLID YELLOW
0010	475+20	-	492+70	CL	440	DASHED YELLOW
0010	492+70	-	503+40	CL	1,340	SB DASHED, NB SOLID YELLOW
0010	503+40	-	527+70	CL	4,860	DOUBLE YELLOW
0010	527+70	-	538+10	CL	1,300	NB DASHED, SB SOLID YELLOW
0010	538+10	-	541+80	CL	90	DASHED YELLOW
0010	541+80	-	552+20	CL	1,300	SB DASHED, NB SOLID YELLOW
0010	552+20	-	595+50	CL	8,660	DOUBLE YELLOW
0010	595+50	-	604+50	CL	1,130	NB DASHED, SB SOLID YELLOW
0010	604+50	-	632+10	CL	690	DASHED YELLOW
0010	632+10	-	638+80	CL	840	SB DASHED, NB SOLID YELLOW
0010	638+80	-	649+40	CL	2,120	DOUBLE YELLOW
0010	649+40	-	659+50	CL	1,260	NB DASHED, SB SOLID YELLOW
0010	659+50	-	781+40	CL	3,050	DASHED YELLOW
0010	781+40	-	791+90	CL	1,310	SB DASHED, NB SOLID YELLOW
0010	791+90	-	798+30	CL	1,280	DOUBLE YELLOW
0010	798+30	-	813+60	CL	1,910	NB DASHED, SB SOLID YELLOW
0010	813+60	-	833+60	CL	4,000	DOUBLE YELLOW

PROJECT TOTALS =

89,220

PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

647.0766

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	187+12	-	187+18	MAINLINE STH 35	65	STH 35/CTH S INT.
0010	187+60	-	187+66	MAINLINE STH 35	67	STH 35/CTH S INT.
0010	190+50	-	190+56	MAINLINE	72	

PROJECT TOTALS =

204

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO:

103

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

LOCATING NO-PASSING ZONES

648.0100					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	99+65.0	-	832+94.8	MAINLINE	13.9
PROJECT TOTALS =					13.9

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH

649.0400					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	107+18	-	113+20	RT	B-47-120 WHITE EDGELINE
0010	107+18	-	113+20	CL	B-47-120 DOUBLE YELLOW CENTERLINE
0010	107+18	-	113+20	LT	B-47-120 WHITE EDGELINE
PROJECT TOTALS =					2,408

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

650.5500					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	19+19 X	-	19+74 X	LT	747TH STREET R.T.L.
0010	19+27 X	-	19+77 X	LT	747TH STREET R.T.L.
PROJECT TOTALS =					158

CONSTRUCTION STAKING RESURFACING REFERENCE

650.8000					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	99+23	-	109+55	CENTERLINE	1,032
0010	110+69	-	246+85	CENTERLINE	13,616
0010	250+20	-	593+01	CENTERLINE	34,281
0010	594+36	-	833+00	CENTERLINE	23,864
PROJECT TOTALS =					72,793

TEMPORARY PAVEMENT MARKING 4-INCH

PER APPLICATION 649.0100									
CATEGORY	STATION	TO	STATION	LOCATION	TYPE	LF	LF	REMARKS	
0010	99+23	-	218+00	CL	DOUBLE YELLOW	23,750	47,500	MILLED SURFACE AND LOWER LIFT	
0010	218+00	-	228+70	CL	NB DASHED, SB SOLID YELLOW	1,160	2,320	MILLED SURFACE AND LOWER LIFT	
0010	228+70	-	312+20	CL	DASHED YELLOW	670	1,340	MILLED SURFACE AND LOWER LIFT	
0010	312+20	-	325+90	CL	SB DASHED, NB SOLID YELLOW	1,480	2,960	MILLED SURFACE AND LOWER LIFT	
0010	325+90	-	331+70	CL	DOUBLE YELLOW	1,160	2,320	MILLED SURFACE AND LOWER LIFT	
0010	331+70	-	342+20	CL	NB DASHED, SB SOLID YELLOW	1,130	2,260	MILLED SURFACE AND LOWER LIFT	
0010	342+20	-	352+90	CL	SB DASHED, NB SOLID YELLOW	1,160	2,320	MILLED SURFACE AND LOWER LIFT	
0010	352+90	-	384+90	CL	DOUBLE YELLOW	6,400	12,800	MILLED SURFACE AND LOWER LIFT	
0010	384+90	-	393+40	CL	NB DASHED, SB SOLID YELLOW	920	1,840	MILLED SURFACE AND LOWER LIFT	
0010	393+40	-	396+10	CL	DOUBLE YELLOW	540	1,080	MILLED SURFACE AND LOWER LIFT	
0010	396+10	-	404+20	CL	SB DASHED, NB SOLID YELLOW	870	1,740	MILLED SURFACE AND LOWER LIFT	
0010	404+20	-	419+70	CL	DOUBLE YELLOW	3,100	6,200	MILLED SURFACE AND LOWER LIFT	
0010	419+70	-	430+10	CL	NB DASHED, SB SOLID YELLOW	1,120	2,240	MILLED SURFACE AND LOWER LIFT	
0010	430+10	-	430+40	CL	DOUBLE YELLOW	60	120	MILLED SURFACE AND LOWER LIFT	
0010	430+40	-	440+10	CL	SB DASHED, NB SOLID YELLOW	1,050	2,100	MILLED SURFACE AND LOWER LIFT	
0010	440+10	-	465+00	CL	DOUBLE YELLOW	4,980	9,960	MILLED SURFACE AND LOWER LIFT	
0010	465+00	-	475+20	CL	NB DASHED, SB SOLID YELLOW	1,100	2,200	MILLED SURFACE AND LOWER LIFT	
0010	475+20	-	492+70	CL	DASHED YELLOW	140	280	MILLED SURFACE AND LOWER LIFT	
0010	492+70	-	503+40	CL	SB DASHED, NB SOLID YELLOW	1,160	2,320	MILLED SURFACE AND LOWER LIFT	
0010	503+40	-	527+70	CL	DOUBLE YELLOW	4,860	9,720	MILLED SURFACE AND LOWER LIFT	
0010	527+70	-	538+10	CL	NB DASHED, SB SOLID YELLOW	1,120	2,240	MILLED SURFACE AND LOWER LIFT	
0010	538+10	-	541+80	CL	DASHED YELLOW	30	60	MILLED SURFACE AND LOWER LIFT	
0010	541+80	-	552+20	CL	SB DASHED, NB SOLID YELLOW	1,120	2,240	MILLED SURFACE AND LOWER LIFT	
0010	552+20	-	595+50	CL	DOUBLE YELLOW	8,660	17,320	MILLED SURFACE AND LOWER LIFT	
0010	595+50	-	604+50	CL	NB DASHED, SB SOLID YELLOW	970	1,940	MILLED SURFACE AND LOWER LIFT	
0010	604+50	-	632+10	CL	DASHED YELLOW	220	440	MILLED SURFACE AND LOWER LIFT	
0010	632+10	-	638+80	CL	SB DASHED, NB SOLID YELLOW	720	1,440	MILLED SURFACE AND LOWER LIFT	
0010	638+80	-	649+40	CL	DOUBLE YELLOW	2,120	4,240	MILLED SURFACE AND LOWER LIFT	
0010	649+40	-	659+50	CL	NB DASHED, SB SOLID YELLOW	1,090	2,180	MILLED SURFACE AND LOWER LIFT	
0010	659+50	-	781+40	CL	DASHED YELLOW	980	1,960	MILLED SURFACE AND LOWER LIFT	
0010	781+40	-	791+90	CL	SB DASHED, NB SOLID YELLOW	1,130	2,260	MILLED SURFACE AND LOWER LIFT	
0010	791+90	-	798+30	CL	DOUBLE YELLOW	1,280	2,560	MILLED SURFACE AND LOWER LIFT	
0010	798+30	-	813+60	CL	NB DASHED, SB SOLID YELLOW	1,650	3,300	MILLED SURFACE AND LOWER LIFT	
0010	813+60	-	833+00	CL	DOUBLE YELLOW	3,880	7,760	MILLED SURFACE AND LOWER LIFT	
0010	107+18		113+20	CL	DOUBLE YELLOW	1,204	1,204	B-47-120	
0010	107+18		113+20	RT	WHITE EDGELINE	602	602	B-47-120	
PROJECT TOTALS =							165,366		

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1721-01-61

650.9910			
CATEGORY	STATION	LOCATION	REMARKS
0010		PROJECT	1
PROJECT TOTALS =			1

3

SAWING ASPHALT

690.0150					
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	11+10			CTH AA	24
0010	11+00	'G' -	11+23	'G' EAST RIVER ROAD (385TH ST.)	47
0010	11+12			CTH A	27
0010	10+50			452ND STREET	24
0010	10+52	'J' -	10+92	'J' 113TH AVENUE	66
0010	10+60			PINEY LANE (125TH AVE.)	27
0010	9+30			PEPIN VIEW ROAD (530TH ST.)	25
0010	10+78			CTH D	31
0010	9+36			560TH STREET	24
0010	29+14			135TH AVENUE	31
0010	10+83			150TH AVENUE	24
0010	9+16			717TH STREET	24
0010	10+80			715TH STREET	24
0010	9+40			AIRPORT ROAD	24
0010	9+20			730TH STREET	24
0010	10+90			CTH C	31
0010	18+59			747TH STREET	24
0010	9+19			760TH STREET	40
0010	9+14			770TH STREET (HOLMES RD)	24
0010	10+90			770TH STREET (HIAWATHA DR)	24
0010	10+78			170TH AVENUE	24
0010	832+17			USH 63 RAMP	24
0010	155+61			PE	19
0010	162+36			PE	51
0010	326+18			PE	13
0010	487+29			PE	19
0010	545+79			PE	77
0010	643+65			PE	27
0010	647+42			PE	14
0010	656+39			PE	24
0010	672+51			PE	31
0010	781+29			PE	20
0010	787+04			PE	15
0010	817+29			PE	16
PROJECT TOTALS =					963

PROFILE CURB CUT

SPV.0090.03					
CATEGORY	STATION	TO	STATION	LOCATIONS	LF
0010	204+64	-	205+06	RT	43
0010	208+38	-	208+80	RT	43
0010	634+58	-	635+00	RT	43
PROJECT TOTALS =					129

PREPARE FOUNDATION FOR ASPHALTIC PAVING SPECIAL (PROJECT) 01. 1721-01-61

SPV.0105.01					
CATEGORY	STATION	TO	STATION	LOCATION	LS
0010	99+23	-	833+00	PROJECT	1
PROJECT TOTALS =					1

MATERIAL TRANSFER VEHICLE

SPV.0105.02					
CATEGORY	STATION	TO	STATION	LOCATION	LS
0010	99+23	-	833+00	PROJECT	1
PROJECT TOTALS =					1

MILLING AND REMOVING TEMPORARY JOINT

SPV.0105.03					
CATEGORY	STATION	TO	STATION	LOCATION	LS
0010	99+23	-	833+00	PROJECT	1
PROJECT TOTALS =					1

SHOULDER REPAIR

					SPV.0170.01	
CATEGORY	STATION	TO	STATION	LOCATION	STA	REMARKS
0010	99+73	-	108+99	LT	10	
0010	111+27	-	116+00	LT	5	
0010	209+77	-	212+47	LT	3	
0010	290+50	-	296+50	LT	6	
0010	295+50	-	301+00	RT	6	
0010	521+50	-	525+50	LT	4	
0010	UNDISTRIBUTED				7	
PROJECT TOTALS =					41	

3

3

PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	HMA PAVEMENT TYPE		REMARKS
					TACK COAT	E-3 SPECIAL	
					455.0605	SPV.0195.01	
					GAL	TON	
0010	99+23	-	99+73	MAINLINE	6	50	BEGIN PROJECT BUTT JOINT
0010	99+73	-	109+00	MAINLINE	103	905	
0010	109+00	-	109+55	MAINLINE	6	55	B-47-120 BUTT JOINT
0010	110+69	-	111+27	MAINLINE	6	55	B-47-120 BUTT JOINT
0010	111+27	-	118+84	MAINLINE	84	740	
0010	118+84	-	120+84	MAINLINE	21	180	TAPER WIDTH FROM 40' TO 34'
0010	120+84	-	167+23	MAINLINE	438	4,225	
0010	167+23	-	167+73	MAINLINE	4	40	MAIDEN ROCK
0010	167+73	-	174+81	MAINLINE	56	495	MAIDEN ROCK
0010	174+81	-	175+04	MAINLINE	2	15	MAIDEN ROCK
0010	175+04	-	205+33	MAINLINE	202	1,775	MAIDEN ROCK
0010	205+33	-	207+32	MAINLINE	16	135	
0010	207+32	-	211+86	MAINLINE	36	315	TAPER WIDTH FROM 28' TO 29'
0010	211+86	-	224+55	MAINLINE	102	1,040	
0010	224+55	-	224+94	MAINLINE	3	30	TAPER WIDTH FROM 30' TO 34'
0010	224+94	-	246+34	MAINLINE	202	1,800	
0010	246+34	-	246+84	MAINLINE	5	45	B-47-106 BUTT JOINT
0010	250+19	-	250+69	MAINLINE	5	45	B-47-106 BUTT JOINT
0010	250+69	-	592+50.5	MAINLINE	3228	30,560	
0010	592+51	-	593+01	MAINLINE	6	55	B-47-118 BUTT JOINT
0010	594+36	-	594+91	MAINLINE	7	60	B-47-118 BUTT JOINT
0010	594+91	-	597+44	MAINLINE	24	240	
0010	597+44	-	634+88	MAINLINE	250	2,195	BAY CITY
0010	634+88	-	635+18	MAINLINE	3	60	BAY CITY
0010	635+10	-	832+50	MAINLINE	1864	16,430	
0010	832+50	-	833+00	MAINLINE	7	65	END PROJECT BUTT JOINT
0010	105+81	-	107+85	LEFT	22	100	WAYSIDE
0010	251+13	-	254+28	RIGHT	35	155	WAYSIDE
0010	351+66	-	356+96	LEFT	45	200	WAYSIDE
0010	368+45	-	370+17	LEFT	59	260	WAYSIDE
0010	774+44	-	779+36	RIGHT	42	185	WAYSIDE
0010	117+72			RIGHT	8	70	CTH AA
0010	223+20			RIGHT	8	65	EAST RIVER ROAD (385TH STREET)
0010	254+55			RIGHT	14	120	CTH A
0010	329+36			RIGHT	3	25	452ND STREET
0010	348+58			RIGHT	4	35	113TH AVENUE
0010	409+99			RIGHT	5	35	PINEY LANE (125TH AVENUE)
0010	453+74			RIGHT	9	80	CTH D
0010	453+74			LEFT	6	50	PEPIN VIEW ROAD (530TH STREET)
0010	496+65			LEFT	5	40	560TH STREET
0010	530+19			RIGHT	2	15	570TH STREET
0010	535+19			RIGHT	3	20	590TH STREET
0010	658+31			LEFT	21	160	135TH AVENUE WITH R.T.L.
0010	695+61			RIGHT	8	65	150TH AVENUE
SUBTOTAL #1 =					6,985	63,290	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

PAVEMENT ITEMS (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	HMA PAVEMENT TYPE		REMARKS
					TACK COAT 455.0605	E-3 SPECIAL SPV.0195.01	
					GAL	TON	
0010	726+63			RIGHT	9	65	715TH STREET
0010	726+63			LEFT	16	120	717TH STREET WITH R.T.L.
0010	736+59			LEFT	6	45	AIRPORT ROAD
0010	744+02			LEFT	9	65	730TH STREET
0010	744+35			RIGHT	11	100	CTH C
0010	764+63			LEFT	20	170	747TH STREET WITH R.T.L.
0010	784+83			LEFT	17	130	760TH STREET WITH R.T.L.
0010	798+31			RIGHT	9	70	770TH STREET (HIAWATHA DRIVE)
0010	798+31			LEFT	8	65	770TH STREET (HOLMES ROAD)
0010	817+47	-	832+17	LEFT	64	565	USH 63 RAMP
0010	830+25	-	832+50	RIGHT	11	85	170TH AVENUE (INCLUDES USH 63 R.T.L.)
0010	830+71	-	832+50	LEFT	2	15	LEFT SHOULDER
SUBTOTAL #2 =					182	1,495	
+							
SUBTOTAL #1 =					6,985	63,290	
PROJECT TOTALS =					7,167	64,785	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CATEGORY 0020 ITEMS

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION	TO	STATION	LOCATION	204.0120 SY	REMARKS
0020	184+71.3	-	190+64.7	LT	366	PARKING LANE IN MAIDEN ROCK
0020	184+72.2	-	187+12.9	RT	169	PARKING LANE IN MAIDEN ROCK
0020	187+66.9	-	191+42.2	RT	233	PARKING LANE IN MAIDEN ROCK
PROJECT TOTALS =					768	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT ITEMS

					HMA PAVEMENT TYPE		REMARKS
					TACK COAT	E-3 SPECIAL	
CATEGORY	STATION	TO	STATION	LOCATION	455.0605 GAL	SPV.0195.01 TON	
0020	184+71.3	-	190+64.7	LT	10	81	PARKING LANE IN MAIDEN ROCK
0020	184+72.2	-	187+12.9	RT	5	37	PARKING LANE IN MAIDEN ROCK
0020	187+66.9	-	191+42.2	RT	6	51	PARKING LANE IN MAIDEN ROCK
PROJECT TOTALS =					21	169	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

CATEGORY	STATION	LOCATION	647.0566 LF	REMARKS
0020	10+32 'D'	CTH S	17	
PROJECT TOTALS =			17	

CURB & GUTTER SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING CURB & GUTTER 204.0150 LF	CONCRETE CURB & GUTTER 30- INCH TYPE D 601.0411 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE CURB AND GUTTER CURE & SEAL TREATMENT SPV.0090.02 LF	REMARKS
0020	177+60	-	177+80	RT	20	20	-	20	
0020	178+19	-	178+34	RT	15	15	-	15	
0020	179+50	-	179+59	RT	9	9	-	9	
0020	184+71	-	184+77	LT	6	6	-	6	
0020	187+01	-	187+21	LT	32	32	23	55	SOUTH CORNER OF CTH S INTERSECTION
0020	187+04	-	187+23	RT	32	32	24	56	EAST CORNER OF CTH S INTERSECTION
0020	187+55	-	187+74	LT	31	31	23	54	WEST CORNER OF CTH S INTERSECTION
0020	187+57	-	187+76	RT	32	32	24	56	NORTH CORNER OF CTH S INTERSECTION
0020	188+50	-	188+60	LT	10	10	-	10	
0020	189+40	-	189+44	LT	4	4	-	4	
0020	189+95	-	190+74	LT	80	80	-	80	SOUTH CORNER OF LAKE ST. INTERSECTION
0020	190+44	-	190+61	RT	17	17	17	34	
0020	190+44	-	190+72	LT	-	-	28	28	SOUTH CORNER OF LAKE ST. INTERSECTION
0020	190+99	-	191+18	LT	18	18	-	18	WEST CORNER OF LAKE ST. INTERSECTION
0020	191+02	-	191+11	LT	-	-	9	9	WEST CORNER OF LAKE ST. INTERSECTION
0020	192+46	-	192+56	RT	10	10	-	10	
0020	199+29	-	199+52	LT	23	23	-	23	
0020	203+10	-	203+20	LT	10	10	-	10	
0020	203+70	-	203+80	LT	10	10	-	10	
0020	206+85	-	206+87	RT	2	2	-	2	
PROJECT TOTALS =					361	361	148	509	

CATEGORY 0020 ITEMS

SIDEWALK SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING	CONCRETE	CONCRETE SIDEWALK	REMARKS
					CONCRETE	SIDEWALK 4-	CURE AND SEAL	
					SIDEWALK	INCH	TREATMENT	
					204.0155	602.0405	SPV.0165.01	
					SY	SF	SF	
0020	184+71	-	184+77	LT	3	30	30	
0020	187+01	-	187+21	LT	15	137	137	SOUTH CORNER OF CTH S INTERSECTION
0020	187+04	-	187+23	RT	15	131	131	EAST CORNER OF CTH S INTERSECTION
0020	187+55	-	187+74	LT	15	132	132	WEST CORNER OF CTH S INTERSECTION
0020	187+57	-	187+76	RT	15	138	138	NORTH CORNER OF CTH S INTERSECTION
0020	190+44	-	190+61	RT	9	85	85	
0020	190+44	-	190+72	LT	14	129	129	SOUTH CORNER OF LAKE ST. INTERSECTION
0020	191+02	-	191+11	LT	3	27	27	WEST CORNER OF LAKE ST. INTERSECTION
PROJECT TOTALS =					89	809	809	

ADJUSTING MANHOLE COVERS, COVER PLATES TEMPORARY, AND ADJUSTING STRUCTURE COVERS

CATEGORY	STATION	LOCATION	ADJUSTING	COVER	ADJUSTING	REMARKS
			MANHOLE	PLATES	STRUCTURE COVERS	
			COVERS	TEMPORARY	COVERS	
			611.8110	611.8120.S	SPV.0060.03	
			EACH	EACH	EACH	
0020	170+83	RT 8'	1	1	-	SAN. MH
0020	170+96	RT 11'	-	-	1	VALVE BOX
0020	177+43	RT 6'	1	1	-	SAN. MH
0020	177+48	RT 2'	-	-	1	VALVE BOX
0020	180+42	RT 9'	1	1	-	SAN. MH
0020	181+92	RT 11'	1	1	-	SAN. MH
0020	183+40	RT 13'	1	1	-	SAN. MH
0020	185+72	RT 11'	-	-	1	VALVE BOX
0020	185+75	RT 13'	1	1	-	SAN. MH
0020	189+37	LT 7'	-	-	1	VALVE BOX
0020	194+89	LT 10'	1	1	-	SAN. MH
0020	197+86	LT 9'	1	1	-	SAN. MH
0020	199+50	LT 11'	1	1	-	SAN. MH
0020	201+00	LT 4'	-	-	1	VALVE BOX
0020	201+43	LT 6'	-	-	1	VALVE BOX
0020	201+54	RT 8'	1	1	-	SAN. MH
0020	201+58	LT 6'	1	1	-	SAN. MH
0020	201+63	CL	-	-	1	VALVE BOX
0020	201+69	LT 4'	-	-	1	VALVE BOX
0020	201+95	CL	1	1	-	SAN. MH
0020	202+71	LT 7'	1	1	-	SAN. MH
0020	205+38	LT 6'	1	1	-	SAN. MH
0020	207+63	LT 9'	1	1	-	SAN. MH
0020	211+27	LT 5'	1	1	-	SAN. MH
0020	213+26	LT 6'	1	1	-	SAN. MH
0020	215+74	LT 7'	1	1	-	SAN. MH
PROJECT TOTALS =			18	18	8	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

INLET PROTECTION TYPE C

CATEGORY	STATION	LOCATION	628.7015	REMARKS
			EACH	
0020	187+08	LT	1	
0020	187+10	RT	1	
0020	187+22	RT	1	
0020	187+58	RT	1	
0020	187+68	LT	1	
0020	187+70	RT	1	
0020	190+63	LT	1	
0020	190+99	RT	1	
0020	191+11	LT	1	
PROJECT TOTALS =			9	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION	LOCATION	602.0505	REMARKS
			SF	
0020	184+72	LT	8	
0020	187+16	LT	8	SOUTH CORNER OF CTH S INTERSECTION
0020	187+18	RT	8	EAST CORNER OF CTH S INTERSECTION
0020	187+60	LT	8	WEST CORNER OF CTH S INTERSECTION
0020	187+62	RT	8	NORTH CORNER OF CTH S INTERSECTION
0020	190+52	LT	8	
0020	190+52	RT	8	
0020	190+69	LT	8	SOUTH CORNER OF LAKE ST. INTERSECTION
0020	191+07	LT	8	WEST CORNER OF LAKE ST. INTERSECTION
PROJECT TOTALS =			72	

PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

CATEGORY	STATION	TO	STATION	LOCATION	647.0766	REMARKS
					LF	
0020	187+18	-	187+60	LT	81	STH 35/CTH S INT.
0020	187+18	-	187+60	RT	81	STH 35/CTH S INT.
0020	190+71	-	191+02	LT	55	STH 35/LAKE ST. INT.
PROJECT TOTALS =					217	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STATE PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

MISCELLANEOUS QUANTITIES

SHEET NO: 109

E

FILE NAME :

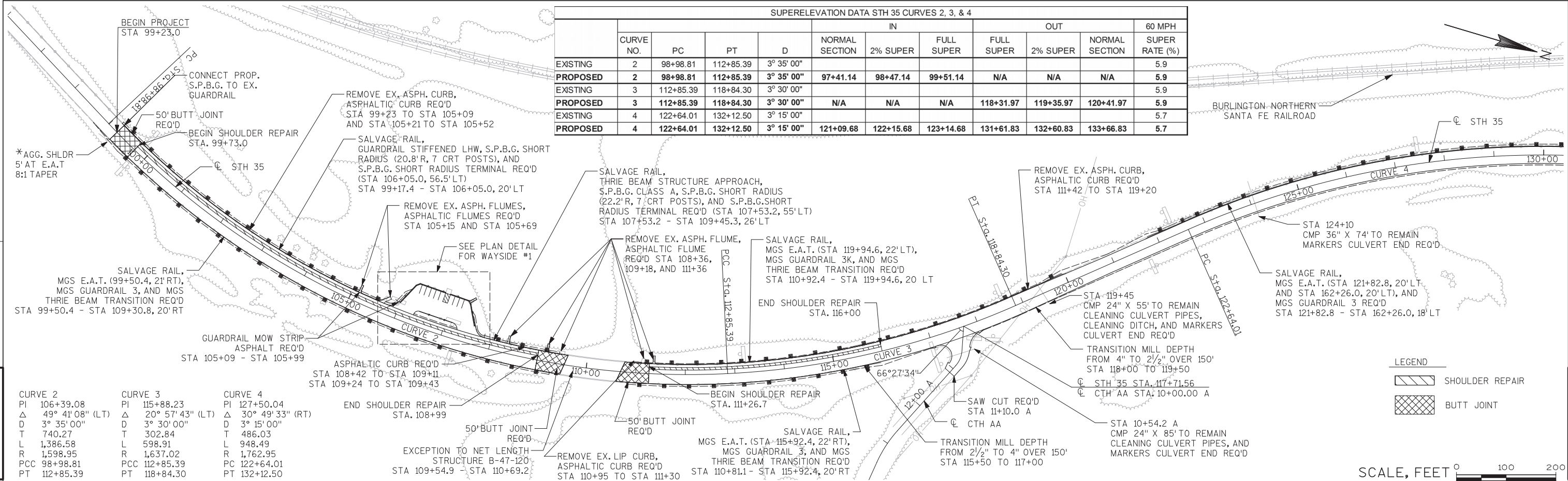
PLOT DATE :

PLOT BY :

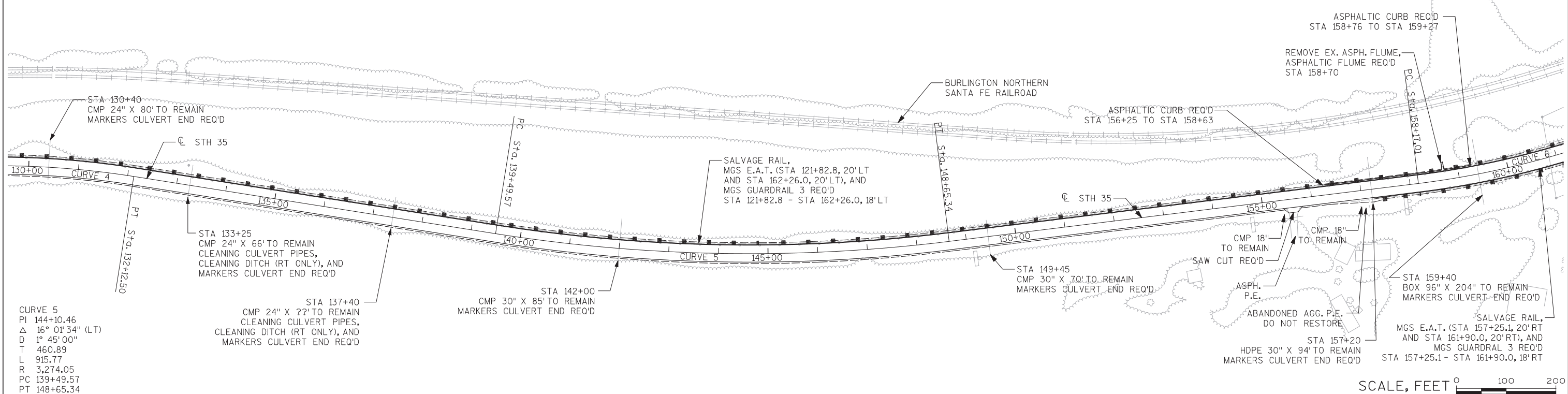
PLOT NAME :

ORIGINATOR : DIST _

PLOT SCALE : 1:1

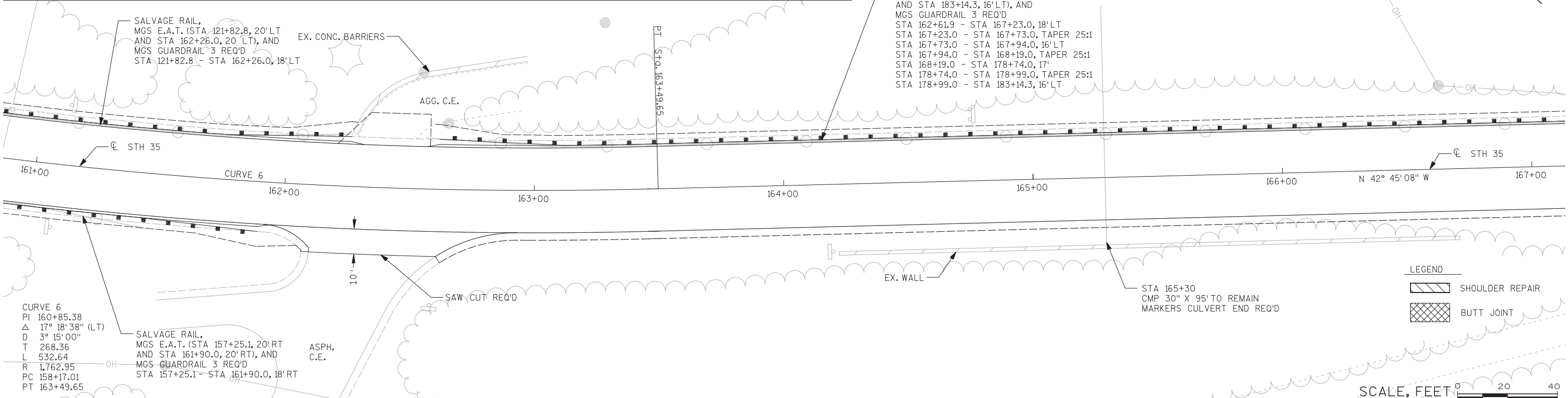


SUPERELEVATION DATA STH 35 CURVE 5											
	CURVE NO.	PC	PT	D	NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	60 MPH SUPER RATE (%)
EXISTING	5	139+49.57	148+65.34	1° 45' 00"							4.1
PROPOSED	5	139+49.57	148+65.34	1° 45' 00"	138+23.90	139+29.90	139+85.90	148+29.01	148+85.01	149+91.01	4.1



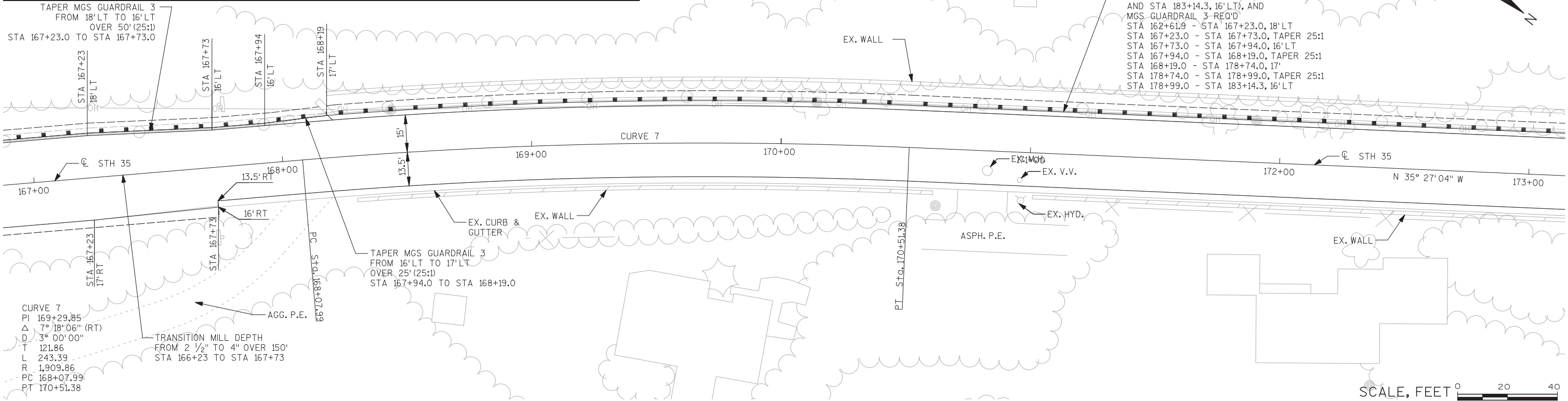
5

SUPERELEVATION DATA STH 35 CURVE 6														
	CURVE NO.	PC	SPEED LIMIT CHANGE	PT	D	IN			60 MPH	TRANSITION		OUT		
						NORMAL SECTION	2% SUPER	FULL SUPER	IN SUPER RATE (%)	FULL SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION
EXISTING	6	158+17.01	161+10.00	163+49.65	3° 15' 00"				5.7					
PROPOSED	6	158+17.01	161+10.00	163+49.65	3° 15' 00"	156+62.68	157+68.68	158+67.68	5.7	160+59.33	161+10.00	163+49.65	163+49.65	163+49.65

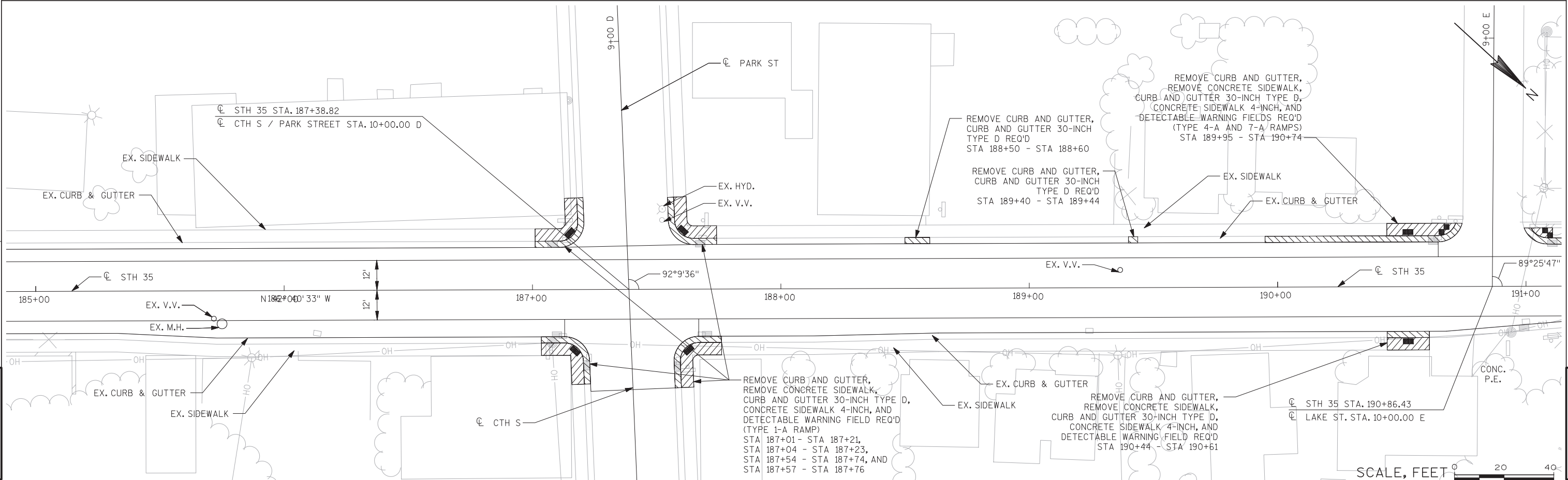


5

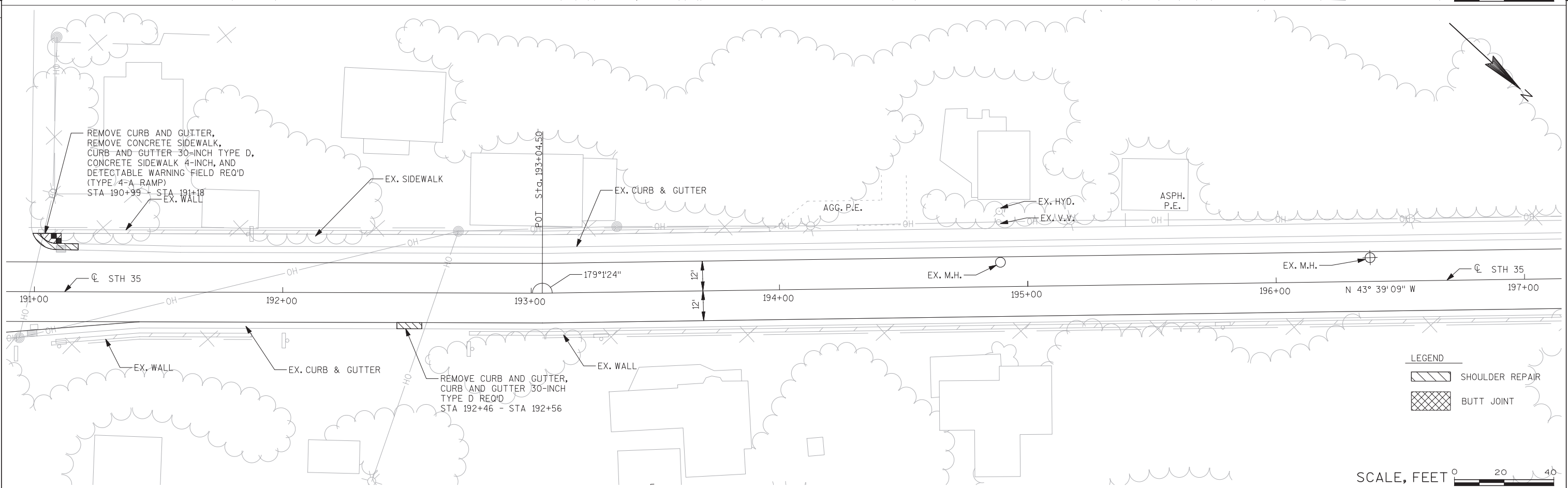
SUPERELEVATION DATA STH 35 CURVE 7											
	CURVE NO.	PC	PT	D	IN			OUT			35 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	7	168+07.99	170+51.38	3° 00' 00"							2.9
PROPOSED	7	168+07.99	170+51.38	3° 00' 00"	167+31.66	168+09.66	168+26.66	170+32.71	170+49.71	171+27.71	2.9



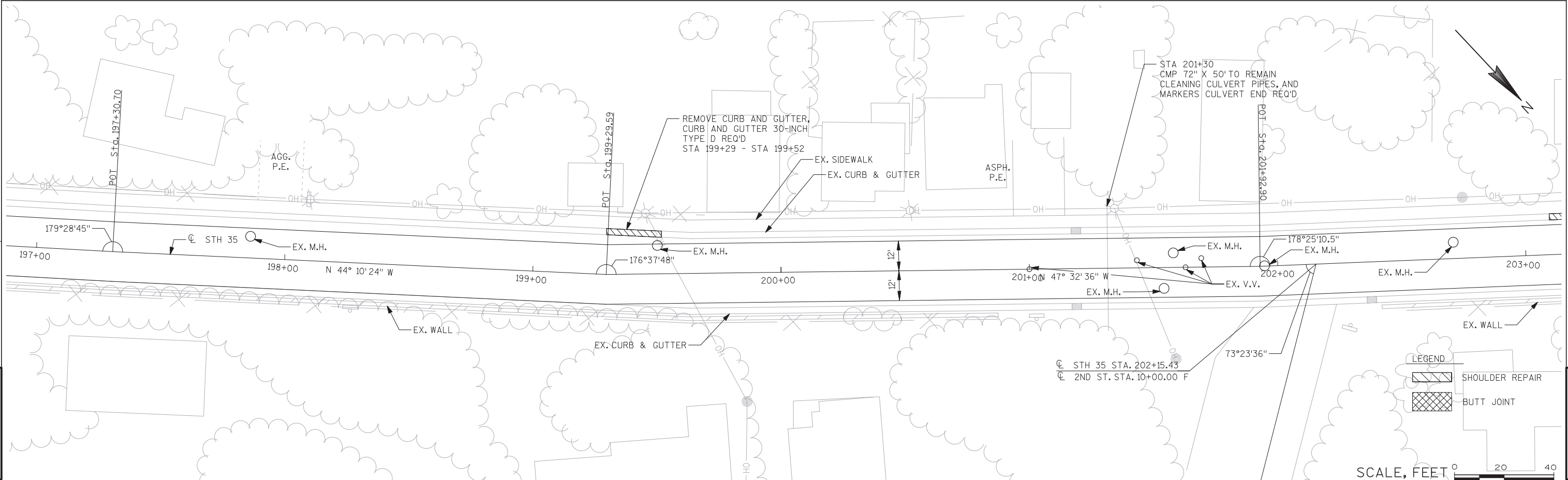
5



5

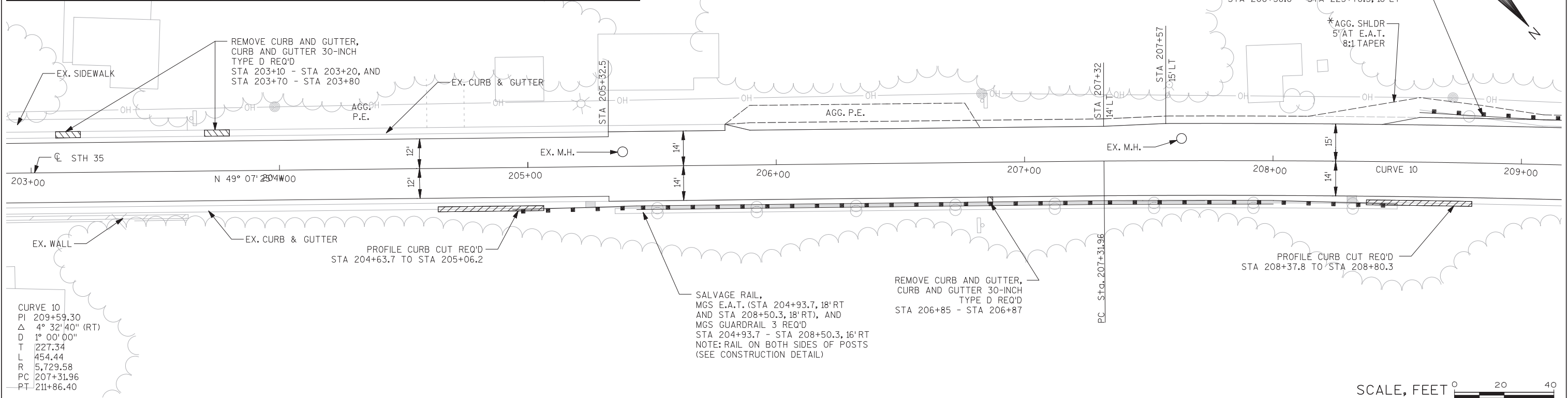


5

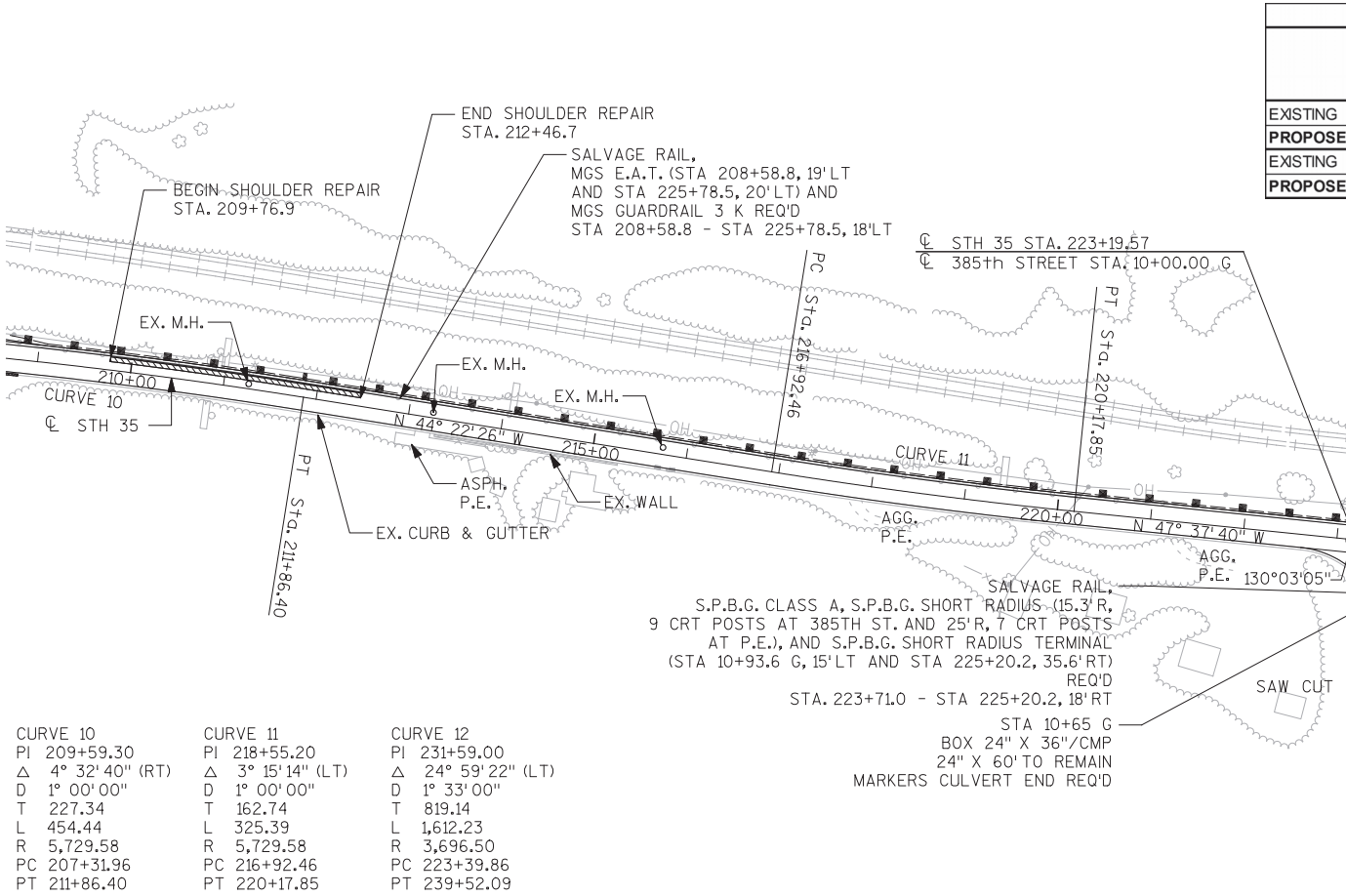


5

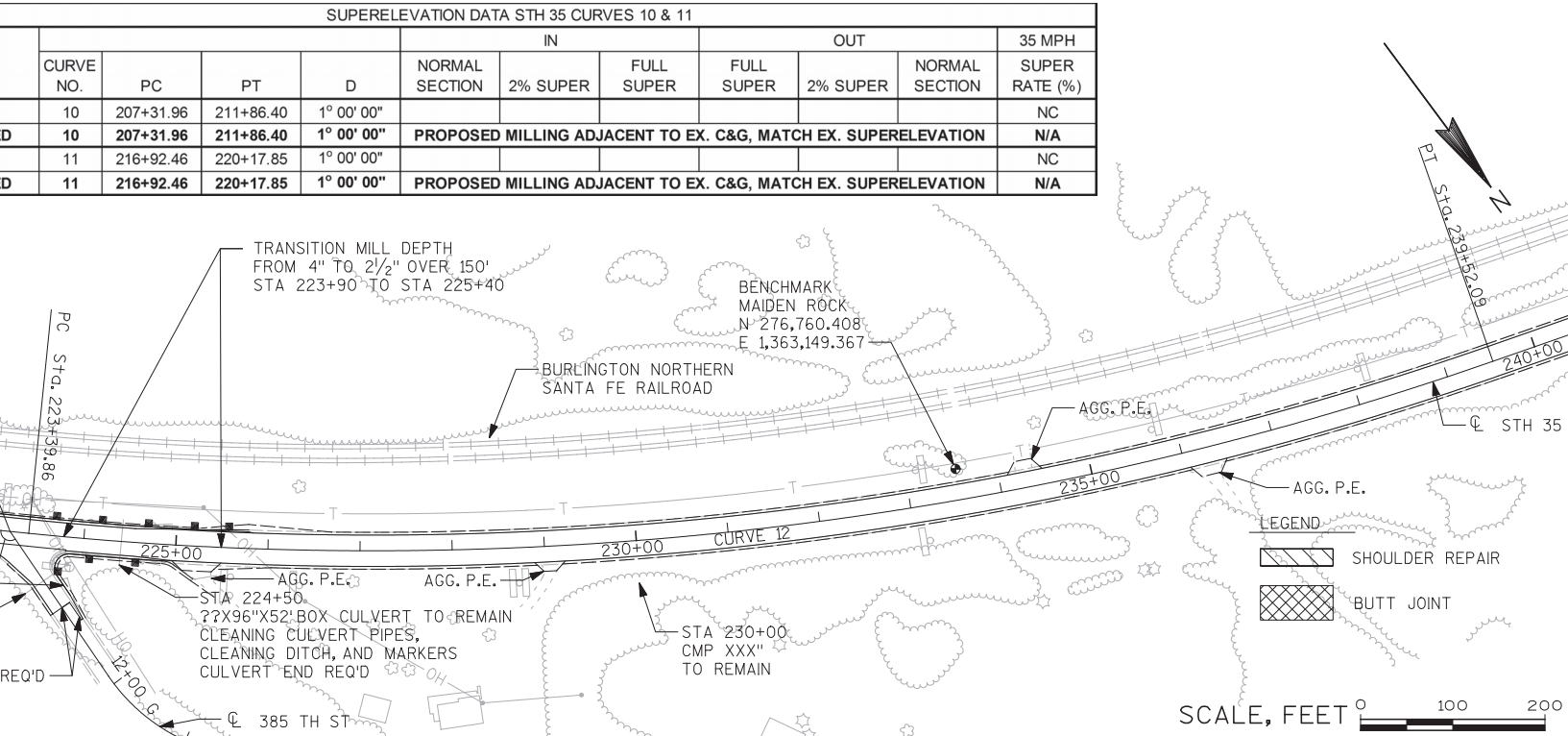
SUPERELEVATION DATA STH 35 CURVE 10											
	CURVE NO.	PC	PT	D	IN			OUT			35 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	10	207+31.96	211+86.40	1° 00' 00"							NC
PROPOSED	10	207+31.96	211+86.40	1° 00' 00"	PROPOSED MILLING ADJACENT TO EX. C&G, MATCH EX. SUPERELEVATION						N/A



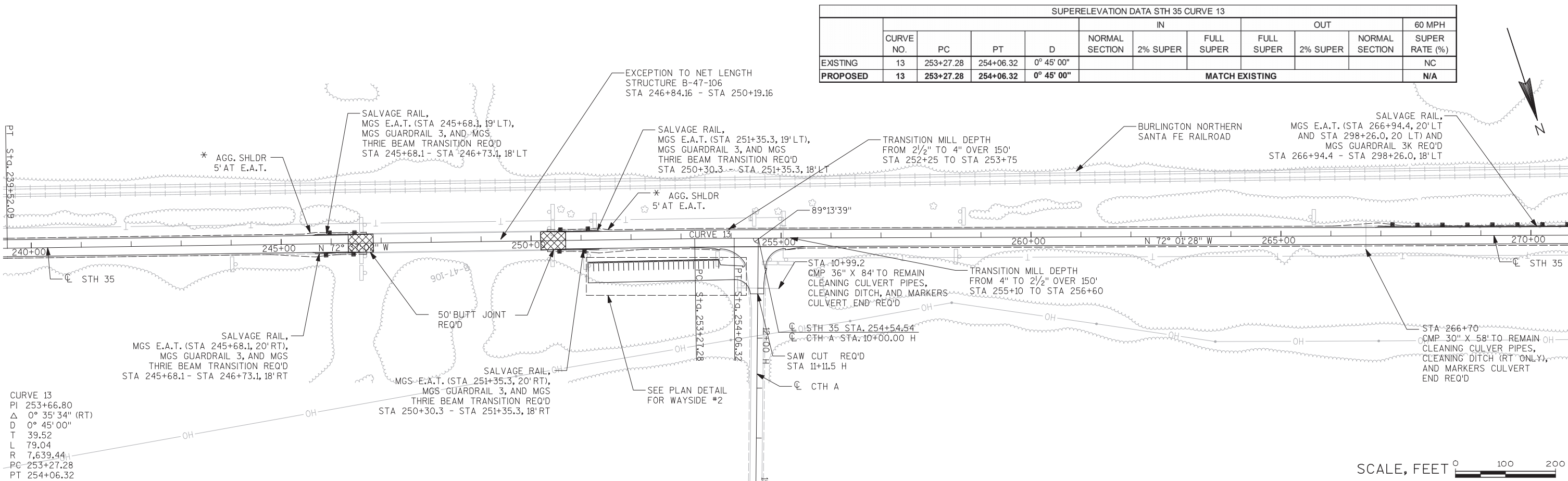
5



SUPERELEVATION DATA STH 35 CURVES 10 & 11											
	CURVE NO.	PC	PT	D	IN		OUT				35 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	10	207+31.96	211+86.40	1° 00' 00"							NC
PROPOSED	10	207+31.96	211+86.40	1° 00' 00"	PROPOSED MILLING ADJACENT TO EX. C&G, MATCH EX. SUPERELEVATION						N/A
EXISTING	11	216+92.46	220+17.85	1° 00' 00"							NC
PROPOSED	11	216+92.46	220+17.85	1° 00' 00"	PROPOSED MILLING ADJACENT TO EX. C&G, MATCH EX. SUPERELEVATION						N/A

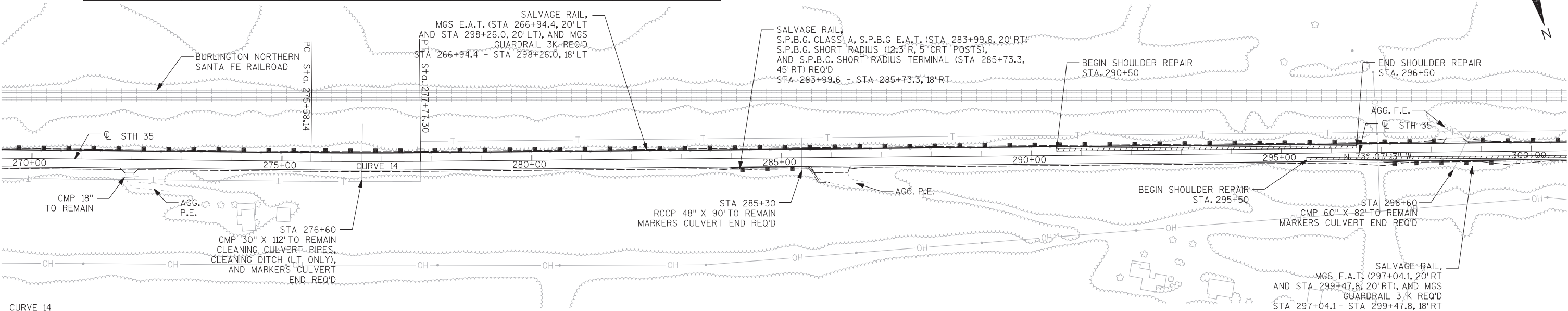


SUPERELEVATION DATA STH 35 CURVE 12															
	CURVE NO.	PC	SPEED LIMIT CHANGE	PT	D	IN		50 MPH		TRANSITION		OUT		60 MPH	
						NORMAL SECTION	2% SUPER	FULL SUPER	IN SUPER RATE (%)	FULL SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	OUT SUPER RATE (%)
EXISTING	12	223+39.86	233+00.00	239+52.09	3° 15' 00"				2.8						3.8
PROPOSED	12	223+39.86	233+00.00	239+52.09	3° 15' 00"	222+45.19	223+41.19	223+63.19	2.9	232+76.67	233+33.67	239+18.42	239+66.42	240+72.42	3.8



SUPERELEVATION DATA STH 35 CURVE 13											
	CURVE NO.	PC	PT	D	IN		OUT				60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	13	253+27.28	254+06.32	0° 45' 00"							NC
PROPOSED	13	253+27.28	254+06.32	0° 45' 00"	MATCH EXISTING						N/A

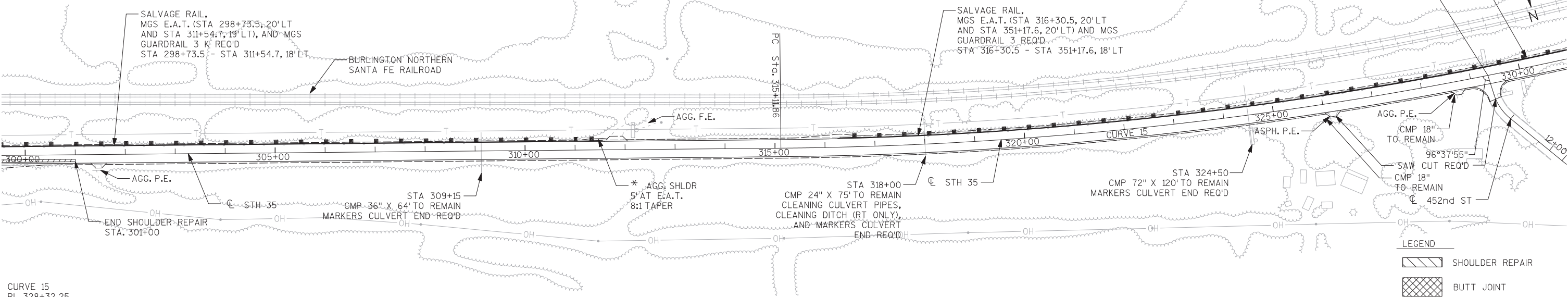
SUPERELEVATION DATA STH 35 CURVE 14											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	14	275+58.14	277+77.30	0° 30' 00"							NC
PROPOSED	14	275+58.14	277+77.30	0° 30' 00"	N/A	N/A	N/A	N/A	N/A	N/A	NC



CURVE 14
PI 276+67.73
Δ 1° 05' 45" (LT)
D 0° 30' 00"
T 109.58
L 219.16
R 11,459.16
PC 275+58.14
PT 277+77.30



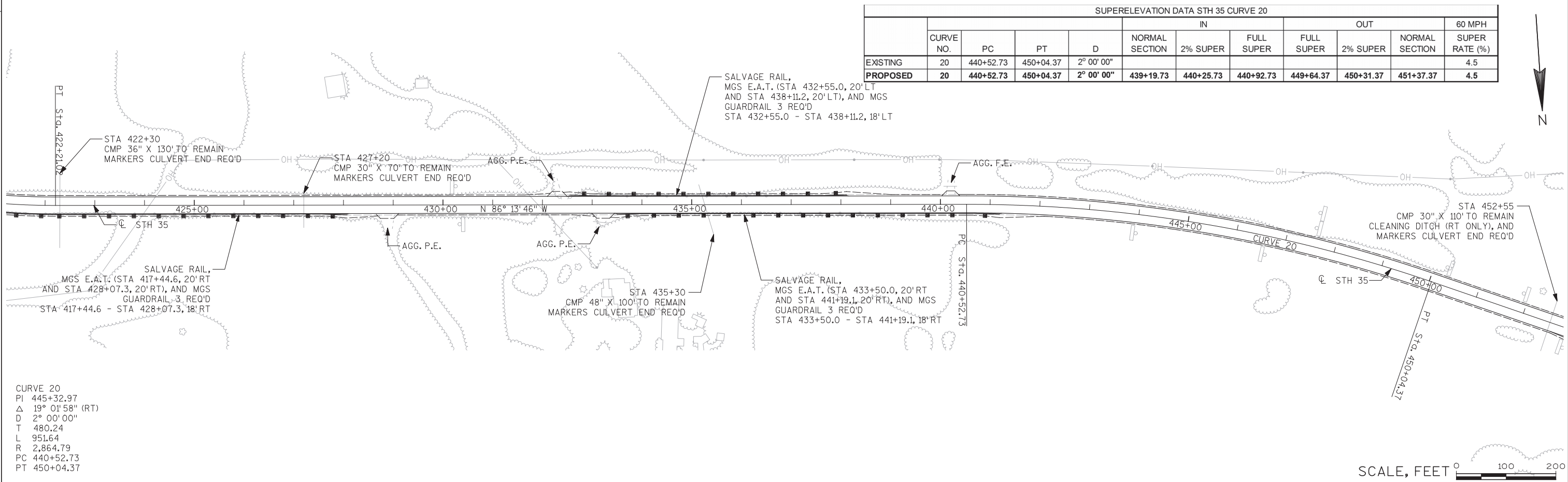
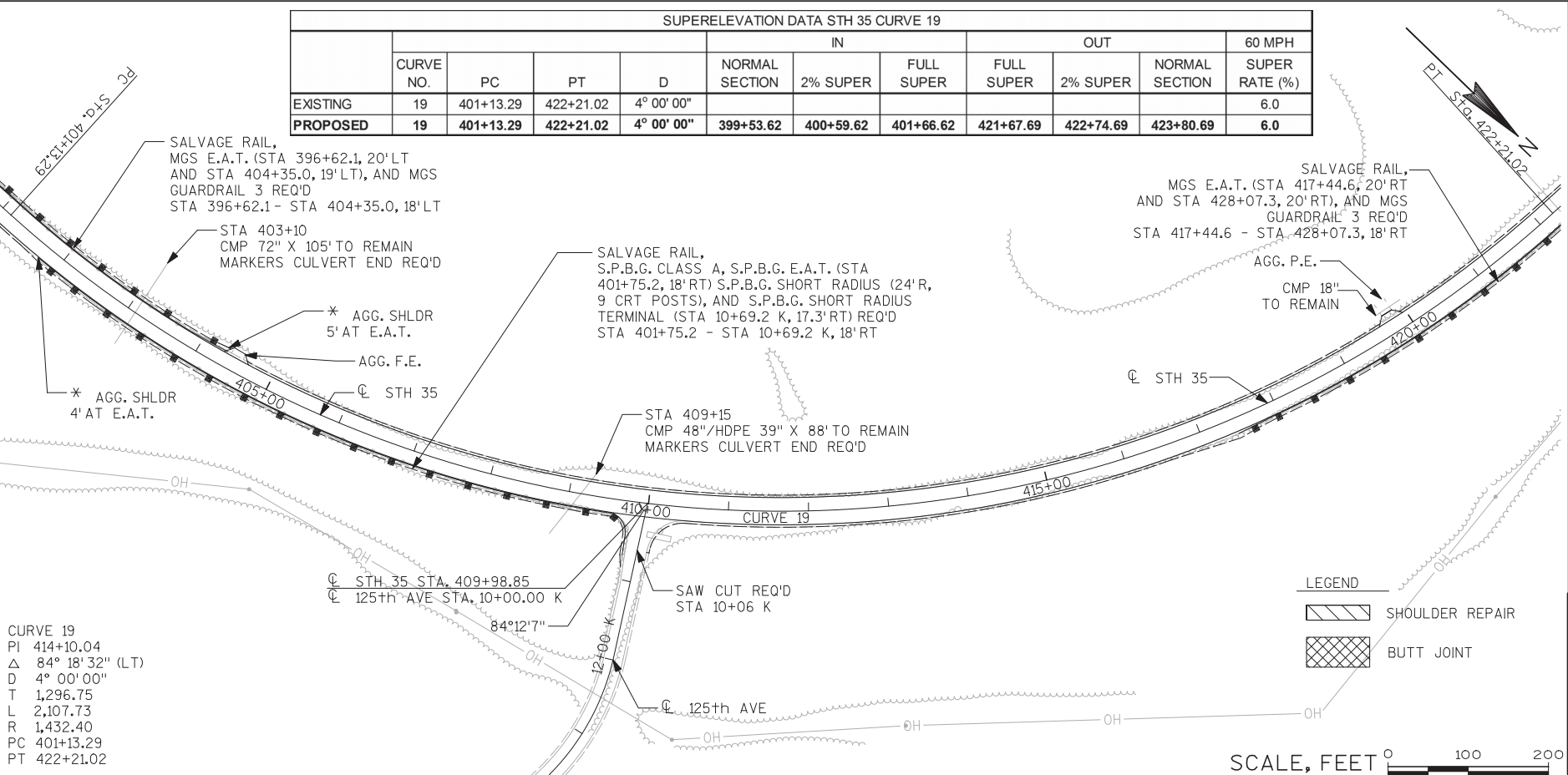
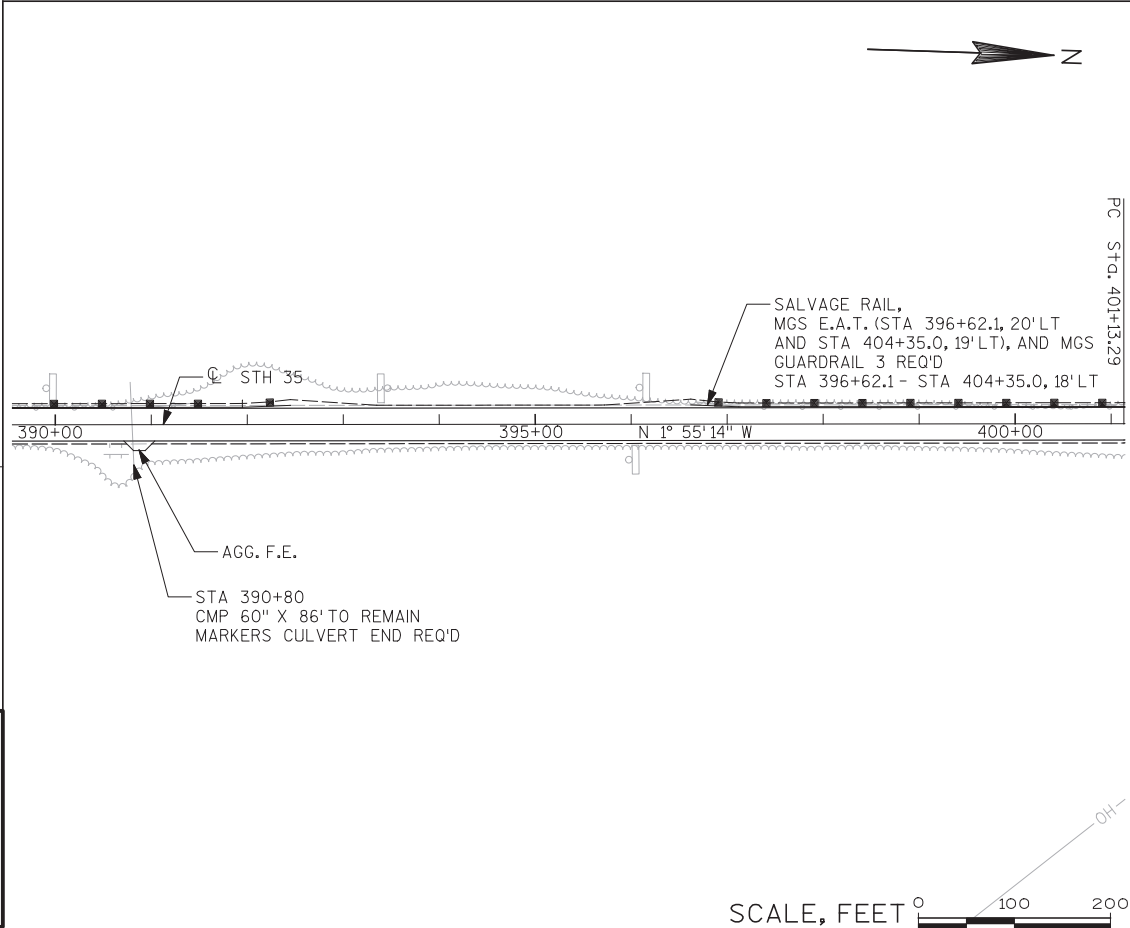
SUPERELEVATION DATA STH 35 CURVE 15											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	15	315+11.86	341+26.82	0° 45' 00"							1.0
PROPOSED	15	315+11.86	341+26.82	0° 45' 00"	314+21.53	315+27.53	315+30.53	341+08.15	341+11.15	342+17.15	2.1



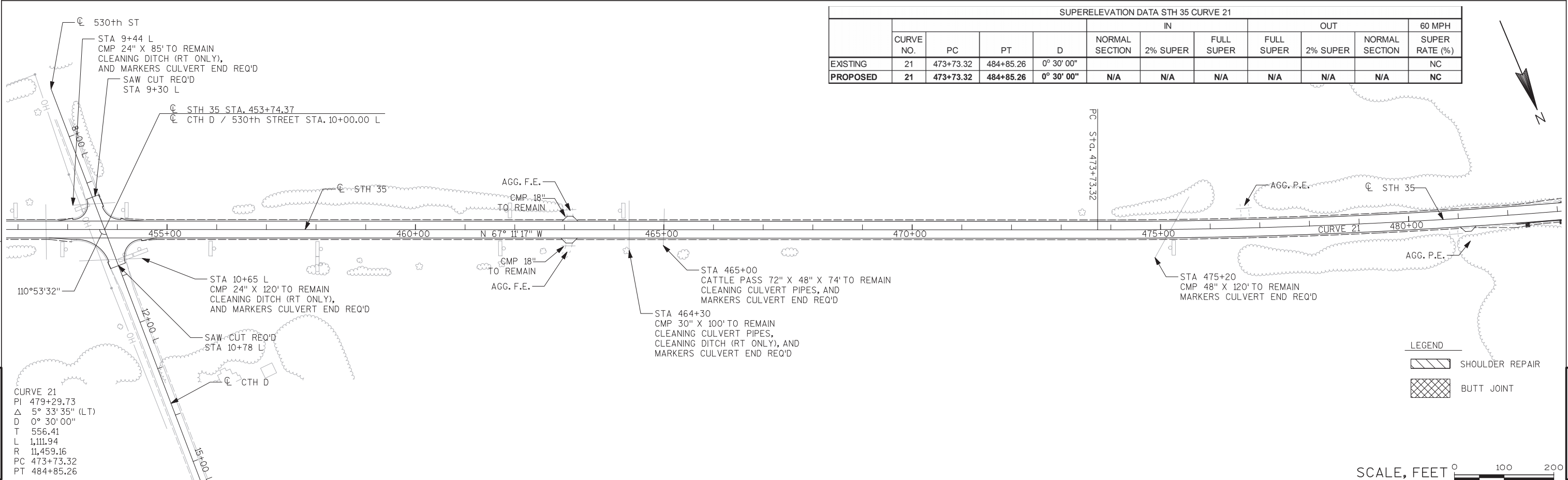
CURVE 15
PI 328+32.25
Δ 19° 36' 44" (LT)
D 0° 45' 00"
T 1,320.40
L 2,614.96
R 7,639.44
PC 315+11.86
PT 341+26.82



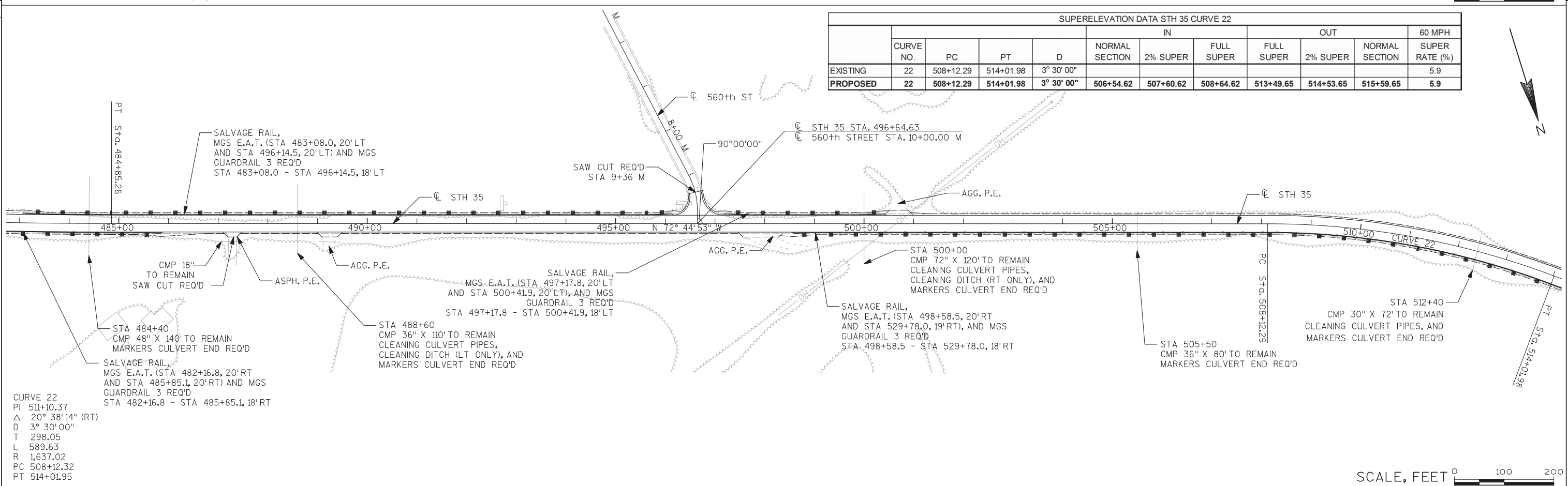
5



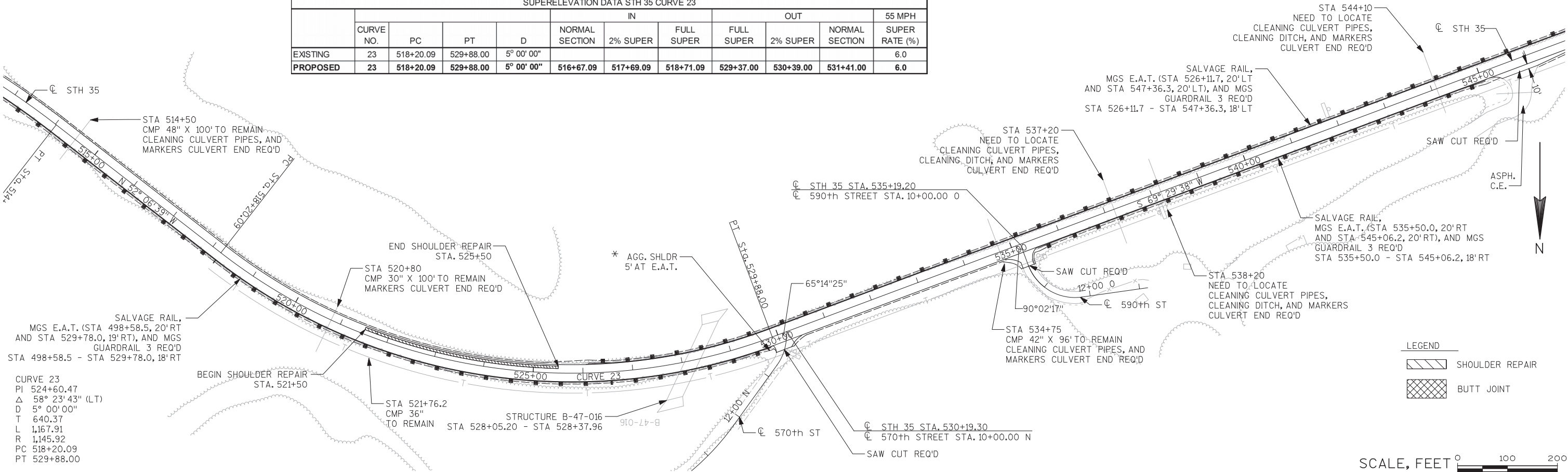
5



5



SUPERELEVATION DATA STH 35 CURVE 23											
	CURVE NO.	PC	PT	D	IN			OUT			55 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	23	518+20.09	529+88.00	5° 00' 00"							6.0
PROPOSED	23	518+20.09	529+88.00	5° 00' 00"	516+67.09	517+69.09	518+71.09	529+37.00	530+39.00	531+41.00	6.0

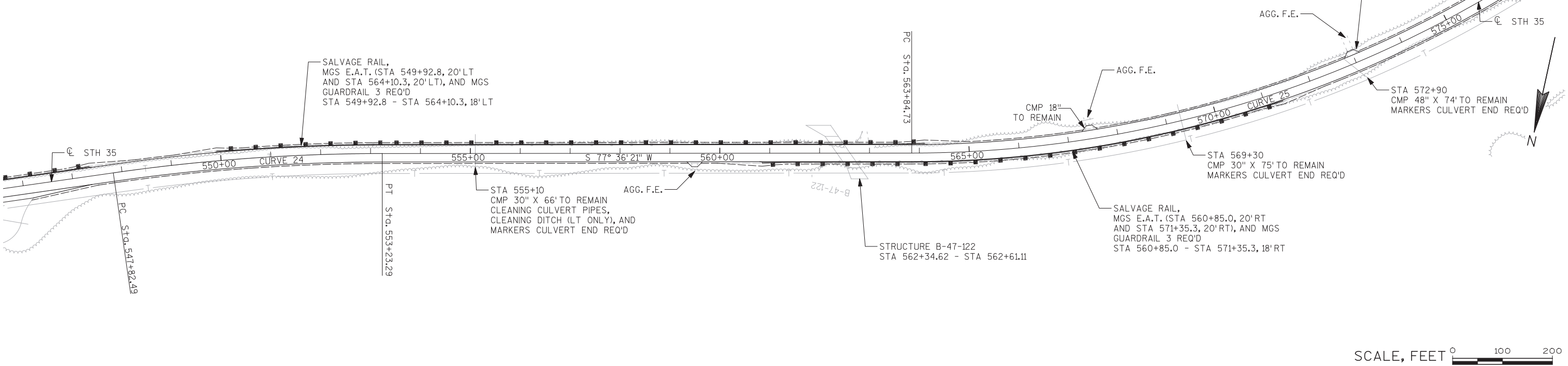


CURVE 23
PI 524+60.47
Δ 58° 23' 43" (LT)
D 5° 00' 00"
T 640.37
L 1,167.91
R 1,145.92
PC 518+20.09
PT 529+88.00

CURVE 24
PI 550+53.34
Δ 8° 06' 43" (RT)
D 1° 30' 00"
T 270.85
L 540.80
R 3,819.72
PC 547+82.49
PT 553+23.29

CURVE 25
PI 573+33.30
Δ 44° 58' 07" (LT)
D 2° 30' 00"
T 948.57
L 1,798.74
R 2,291.83
PC 563+84.73
PT 581+83.47

SUPERELEVATION DATA STH 35 CURVES 24 & 25											
					IN			OUT			60 MPH
	CURVE NO.	PC	PT	D	NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	24	547+82.49	553+23.29	1° 30' 00"							3.7
PROPOSED	24	547+82.49	553+23.29	1° 30' 00"	546+62.49	547+70.49	548+15.49	552+90.29	553+35.29	554+43.29	3.7
EXISTING	25	563+84.73	581+83.47	2° 30' 00"							5.1
PROPOSED	25	563+84.73	581+83.47	2° 30' 00"	562+41.06	563+47.06	564+30.06	581+38.14	582+21.14	583+27.14	5.1



PROJECT NO:1721-01-61

HWY: STH 35

COUNTY: PIERCE

PLAN

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

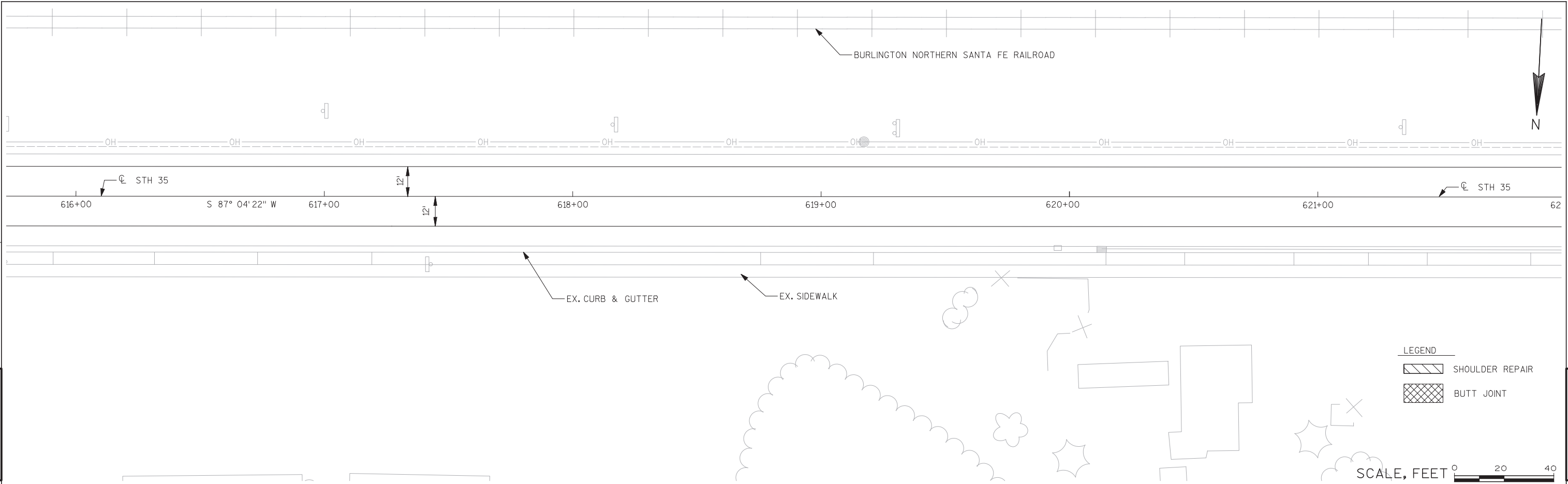
PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

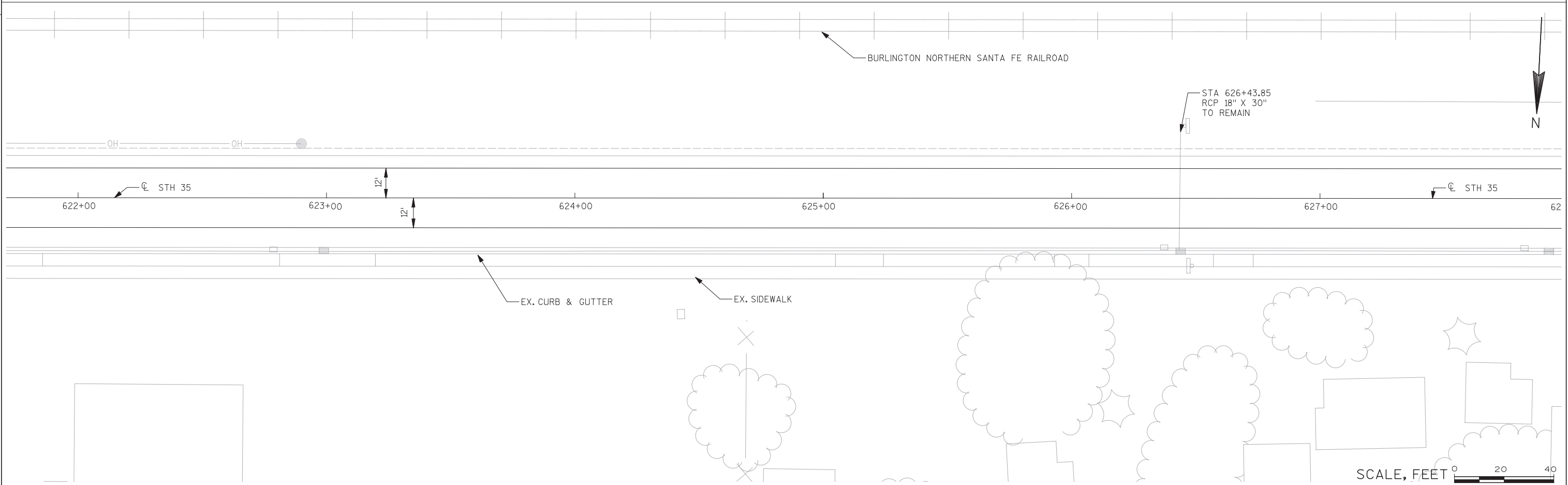
WISDOT/CAD 120

ET 44

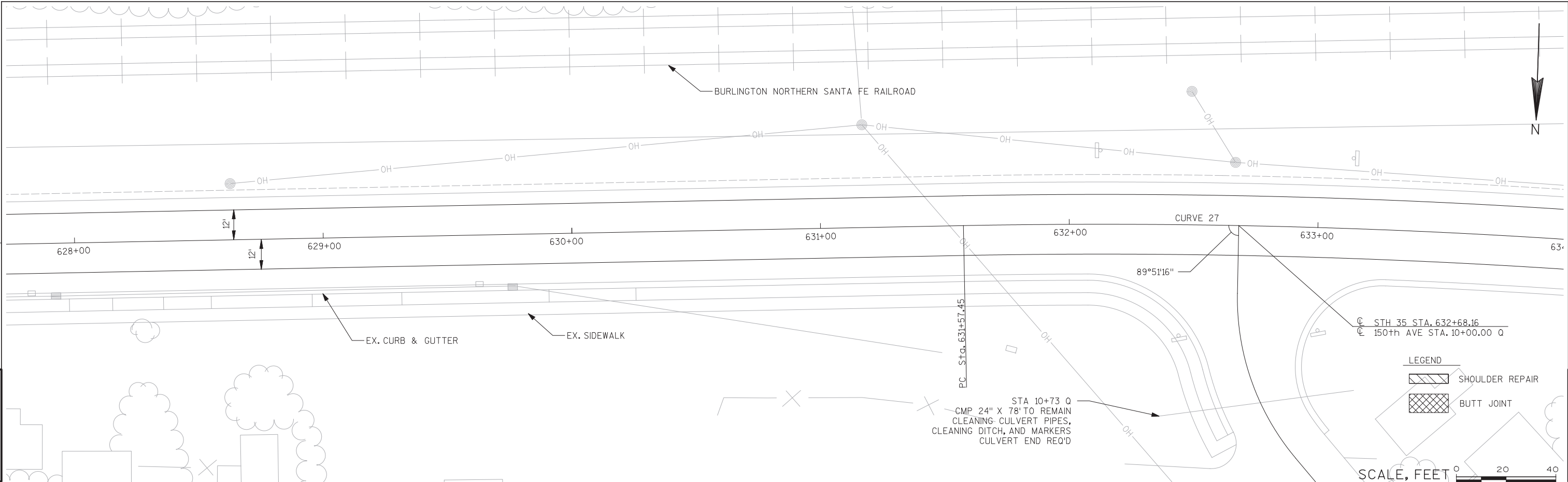
5



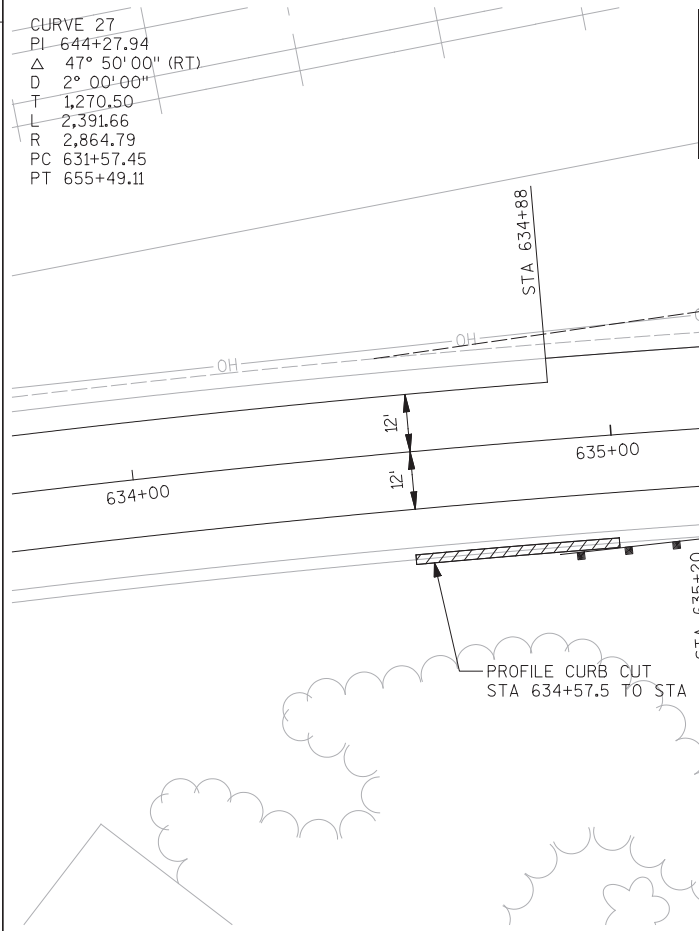
5



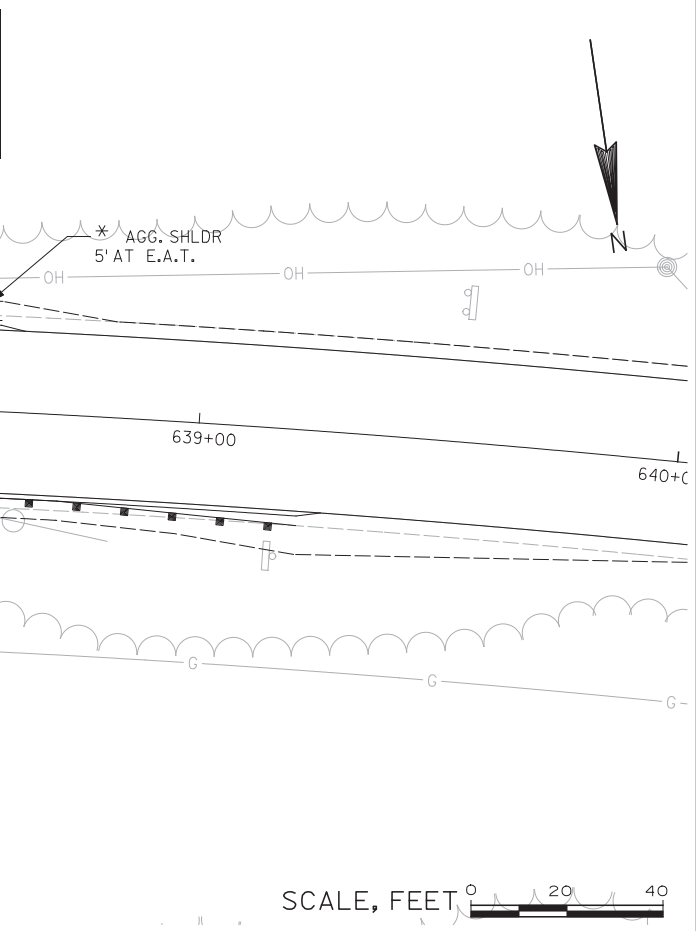
5

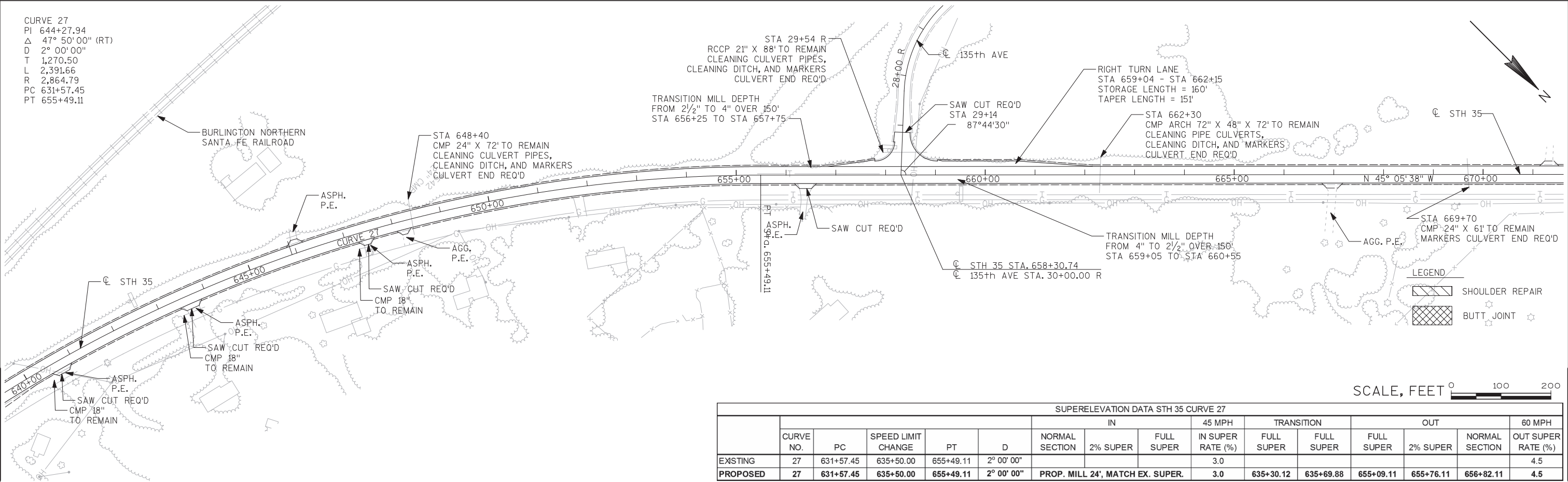


5

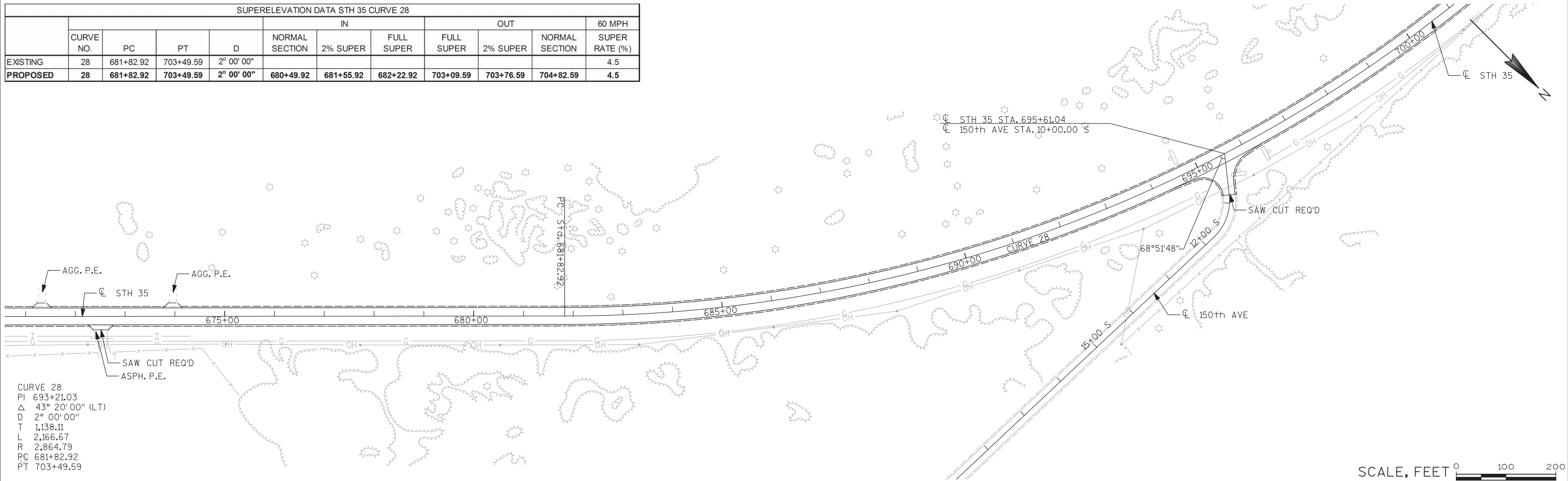


SUPERELEVATION DATA STH 35 CURVE 27														
	CURVE NO.	PC	SPEED LIMIT CHANGE	PT	D	IN		45 MPH		TRANSITION		OUT		60 MPH
						NORMAL SECTION	2% SUPER	FULL SUPER	IN SUPER RATE (%)	FULL SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION
EXISTING	27	631+57.45	635+50.00	655+49.11	2° 00' 00"				3.0					4.5
PROPOSED	27	631+57.45	635+50.00	655+49.11	2° 00' 00"	PROP. MILL 24', MATCH EX. SUPER.			3.0	635+30.12	635+69.88	655+09.11	655+76.11	656+82.11

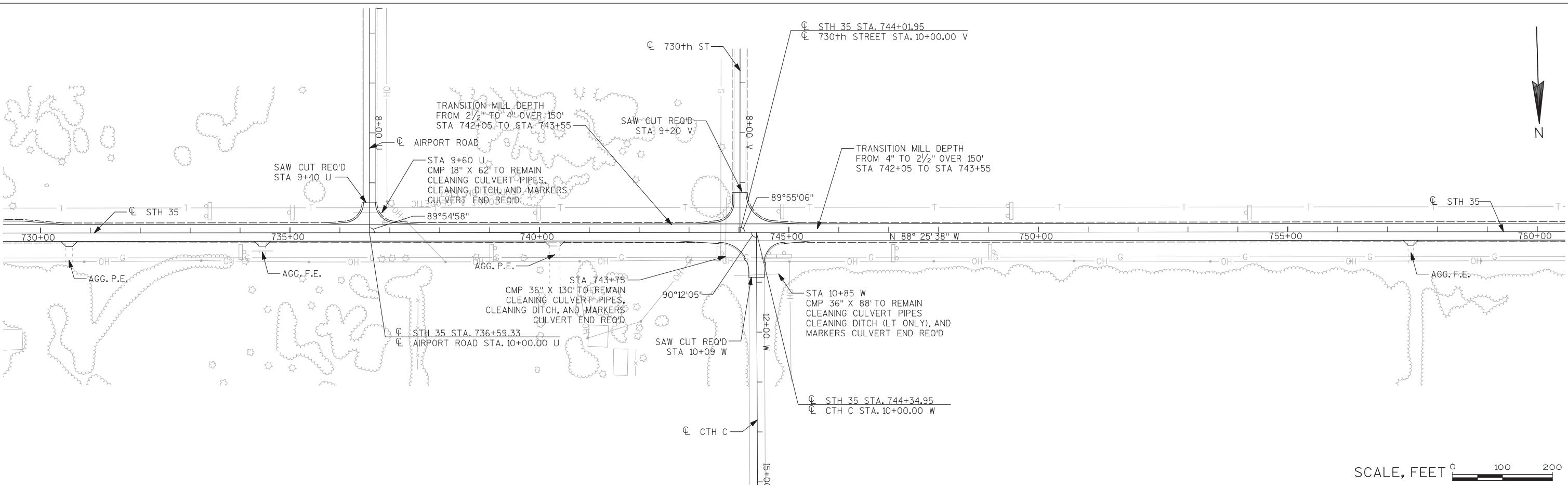
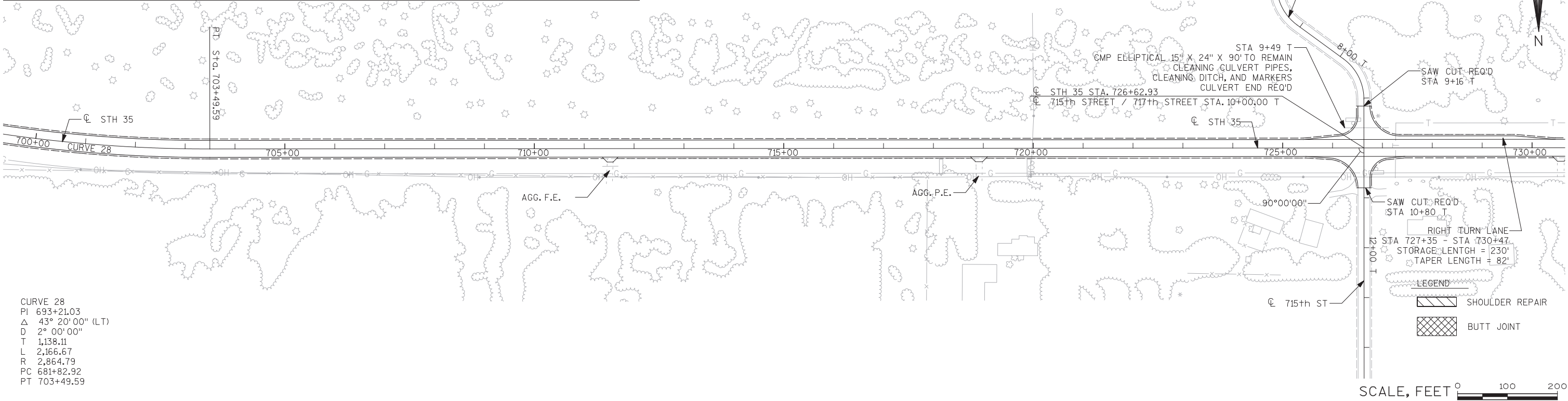




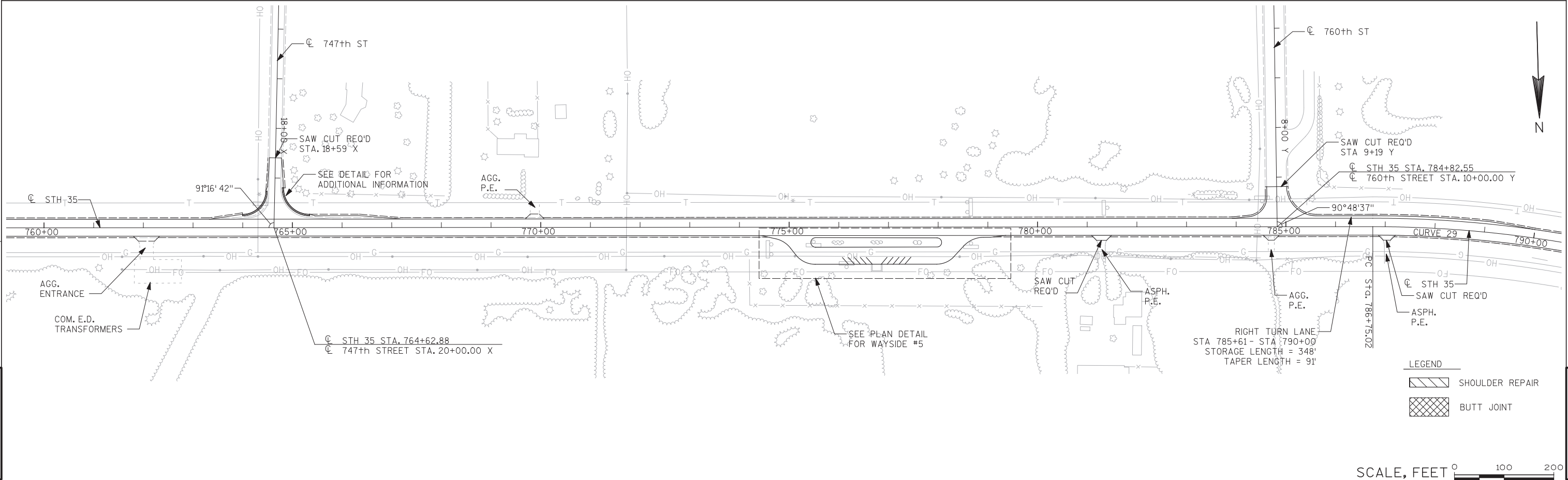
SUPERELEVATION DATA STH 35 CURVE 28											
	CURVE NO.	PC	PT	D	IN		OUT			60 MPH	
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	28	681+82.92	703+49.59	2° 00' 00"							4.5
PROPOSED	28	681+82.92	703+49.59	2° 00' 00"	680+49.92	681+55.92	682+22.92	703+09.59	703+76.59	704+82.59	4.5



SUPERELEVATION DATA STH 35 CURVE 28											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	28	681+82.92	703+49.59	2° 00' 00"							4.5
PROPOSED	28	681+82.92	703+49.59	2° 00' 00"	680+49.92	681+55.92	682+22.92	703+09.59	703+76.59	704+82.59	4.5

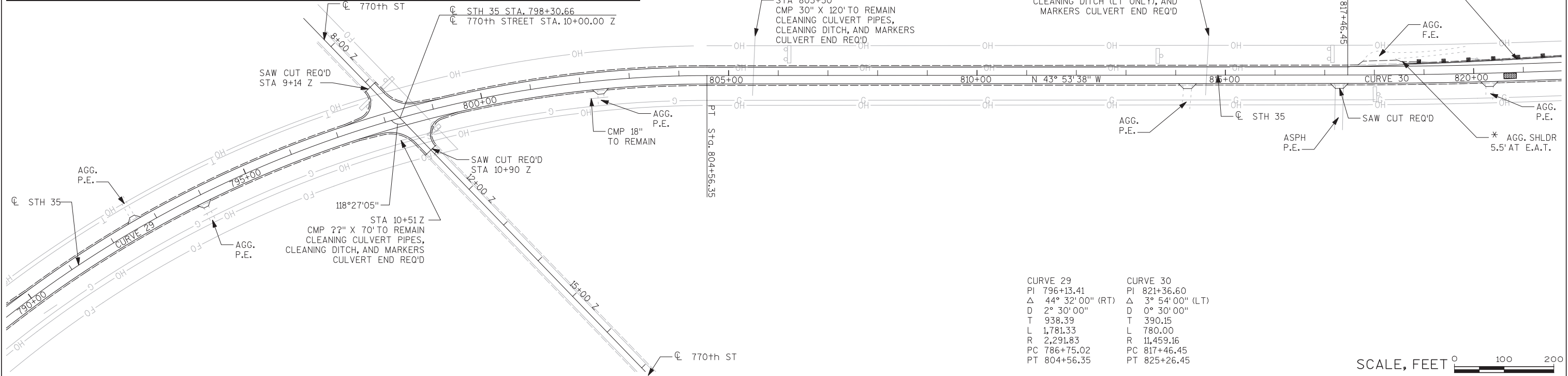


5



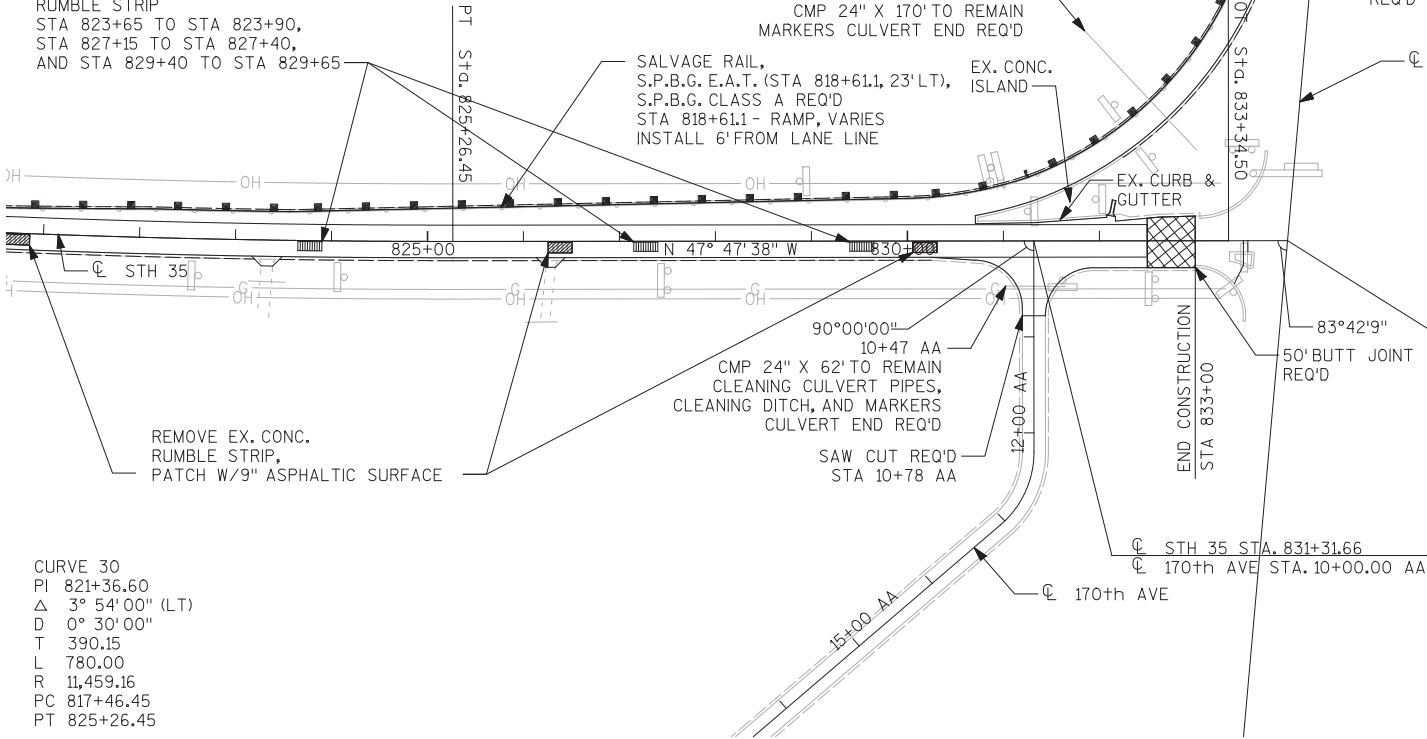
5

SUPERELEVATION DATA STH 35 CURVES 29 & 30											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	29	786+75.02	804+56.35	2° 30' 00"							5.1
PROPOSED	29	786+75.02	804+56.35	2° 30' 00"	785+31.35	786+37.35	787+20.35	804+11.02	804+94.02	806+00.02	5.1
EXISTING	30	817+46.45	825+26.45	0° 30' 00"							NC
PROPOSED	30	817+46.45	825+26.45	0° 30' 00"	N/A	N/A	N/A	N/A	N/A	N/A	NC



SUPERELEVATION DATA STH 35 CURVE 30											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH SUPER RATE (%)
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	
EXISTING	30	817+46.45	825+26.45	0° 30' 00"							NC
PROPOSED	30	817+46.45	825+26.45	0° 30' 00"	N/A	N/A	N/A	N/A	N/A	N/A	NC

ASPHALTIC INTERSECTION
RUMBLE STRIP
STA 823+65 TO STA 823+90,
STA 827+15 TO STA 827+40,
AND STA 829+40 TO STA 829+65



CURVE 30
PI 821+36.60
Δ 3° 54' 00" (LT)
D 0° 30' 00"
T 390.15
L 780.00
R 11,459.16
PC 817+46.45
PT 825+26.45

LEGEND

SHOULDER REPAIR

BUTT JOINT

NOTE: SEE PLAN DETAIL FOR PAVEMENT MARKINGS

SCALE, FEET 0 100 200

PROJECT NO:1721-01-61

HWY: STH 35

COUNTY: PIERCE

PLAN

SHEET

E

FILE NAME : \$\$\$\$.designfile....\$\$

PLOT DATE : \$\$\$\$.plottingdate...\$\$

PLOT BY : \$\$\$\$.plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$\$\$.plotscale.....\$\$

WISDOT/CAD 127

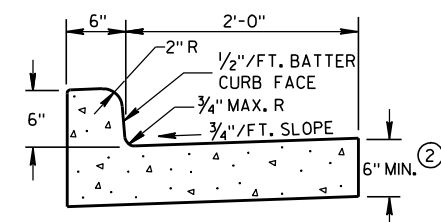
ET 44

Standard Detail Drawing List

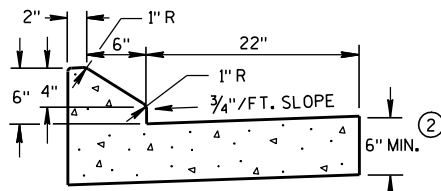
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09A01-12A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B28-02	GUARDRAIL MOW STRIP
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14C01-02	TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C14-01	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C18-03	MEDIAN ISLAND MARKING

Standard Detail Drawing List

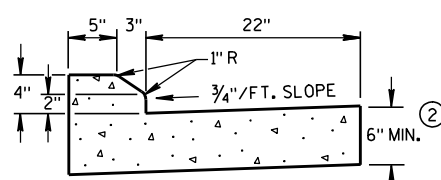
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-01B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-01C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPES A & D ①



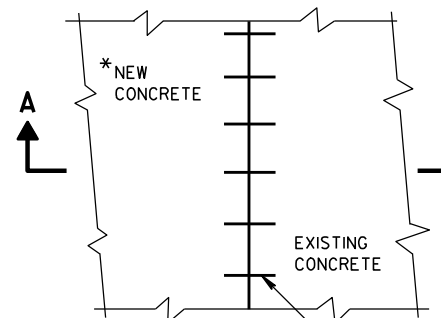
6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

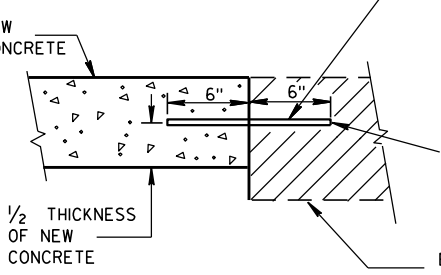
CONCRETE CURB & GUTTER 30"

* NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

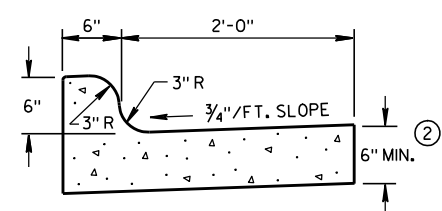


PLAN VIEW

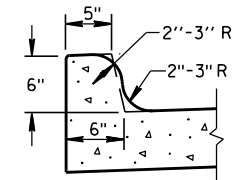
NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



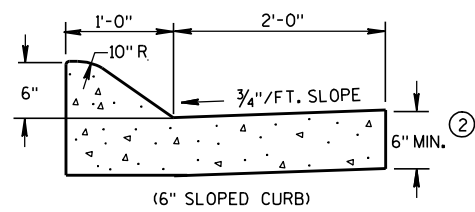
SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT



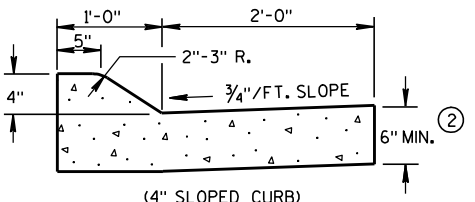
TYPES K & L ①



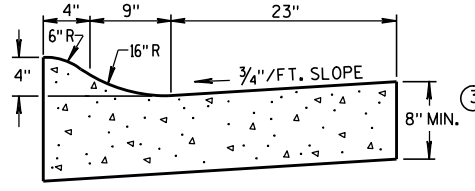
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



(6" SLOPED CURB)

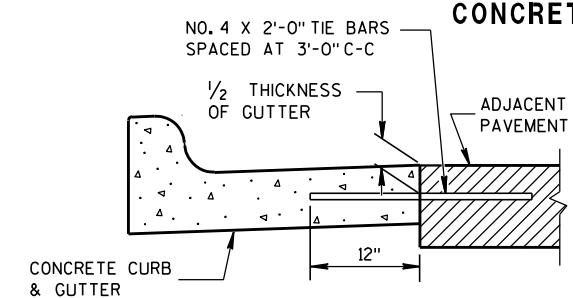


TYPES A & D ①

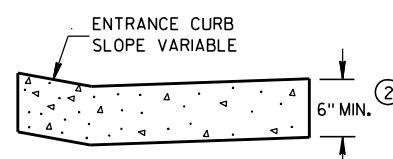


4" SLOPED CURB TYPES R & T ① ④

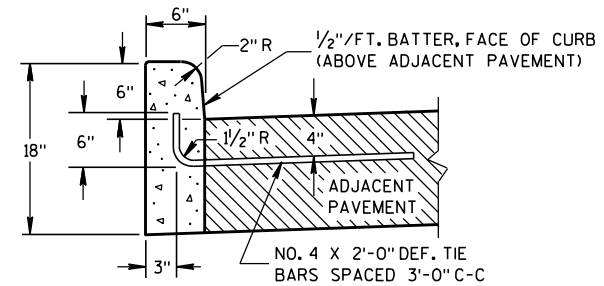
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

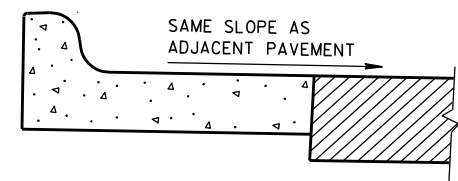


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

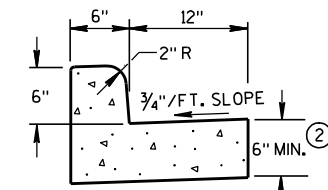


TYPES A & D ①

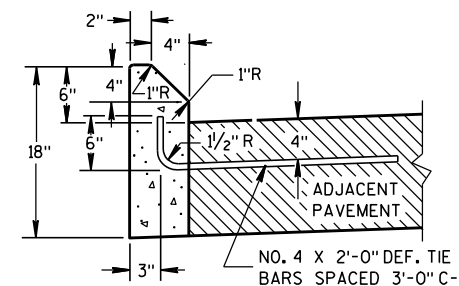
CONCRETE CURB



REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



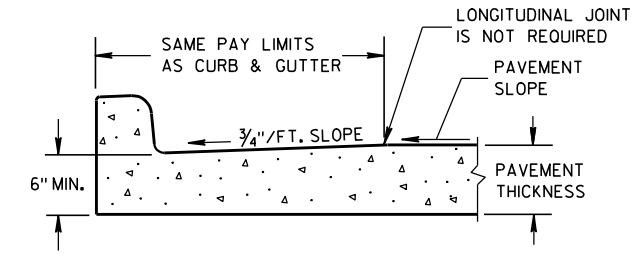
TYPES A & D
CONCRETE CURB & GUTTER 18"



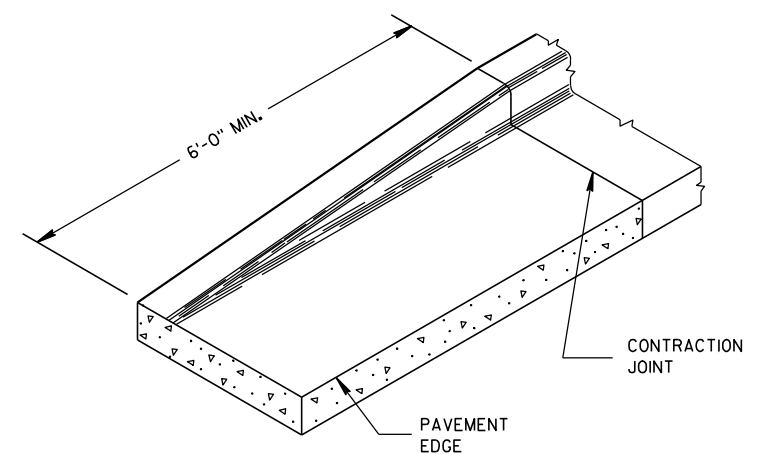
TYPES G & J ①

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.
- WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
 - ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
 - ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

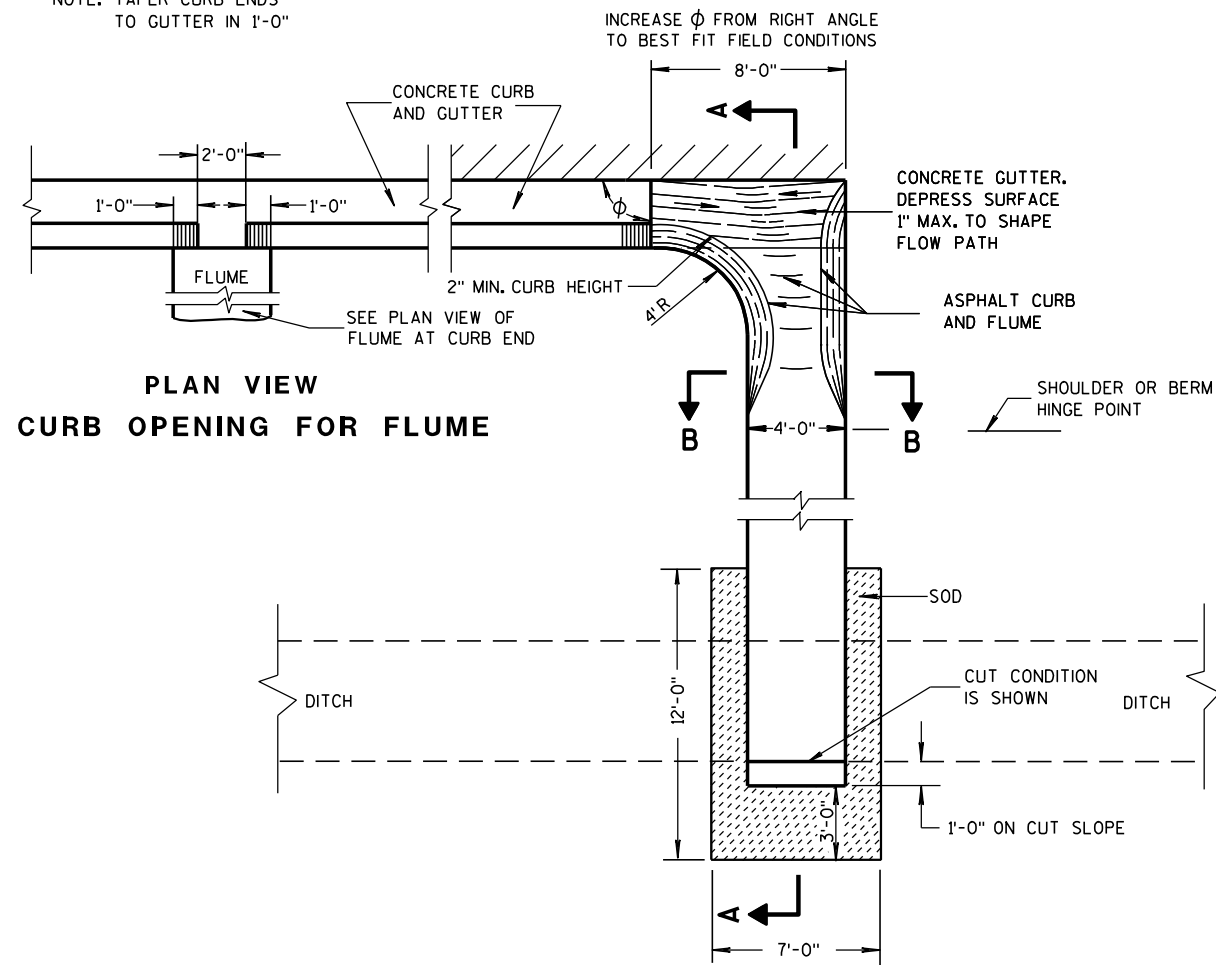
CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 /S/ Jerry H. 7-
DATE ROADWAY STANDARDS 130 ENT
FHWA ENGINEER

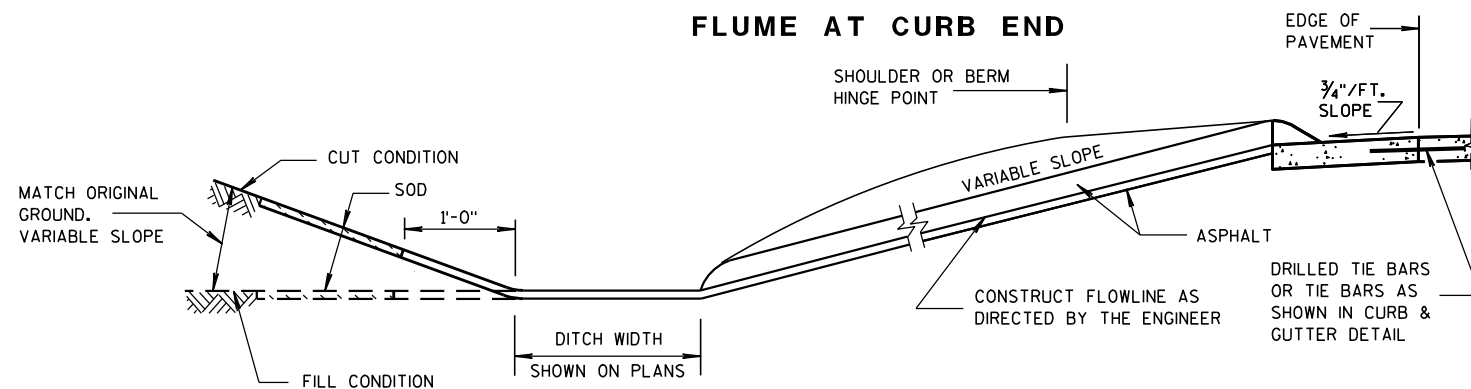
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

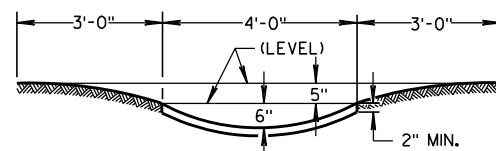


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

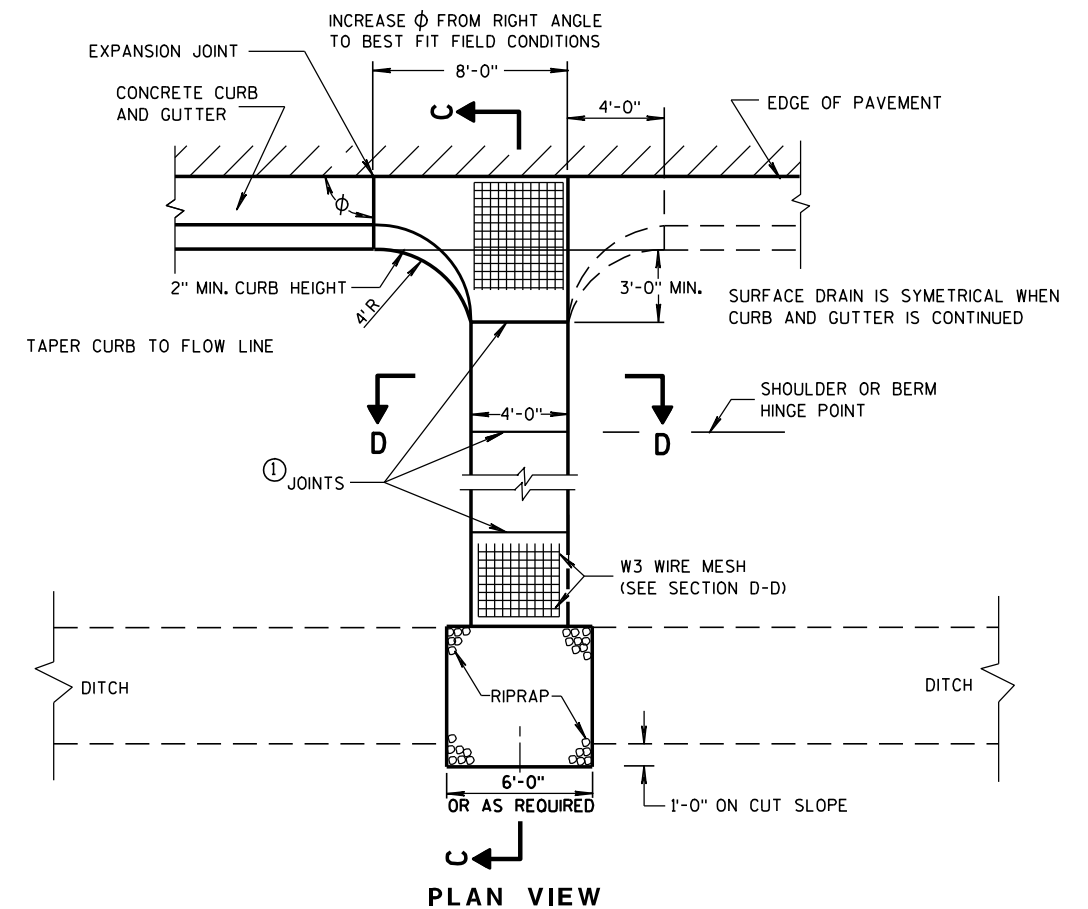
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

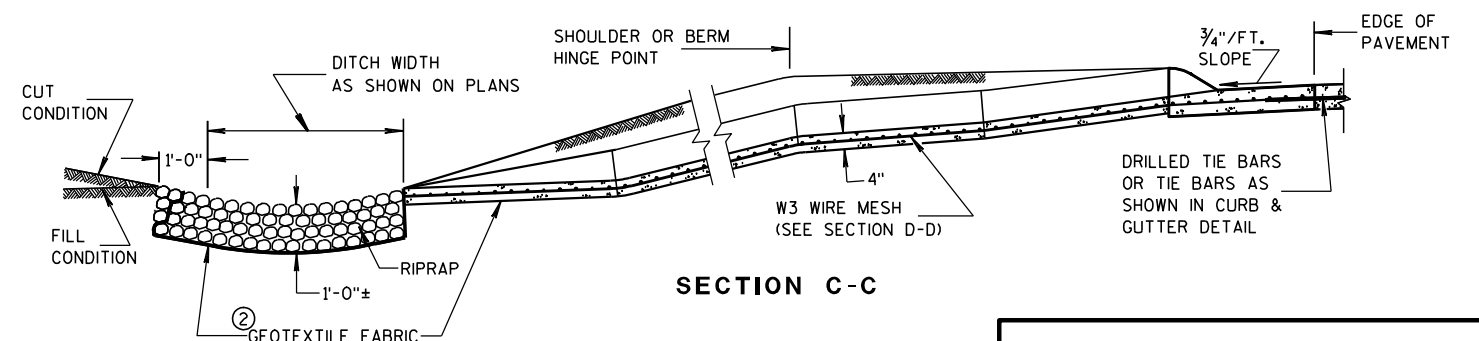
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

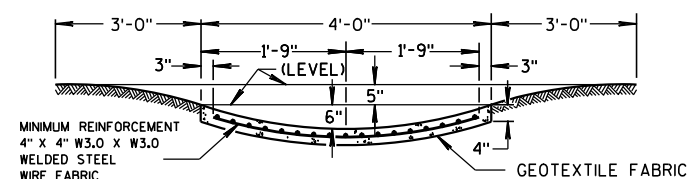
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

DATE

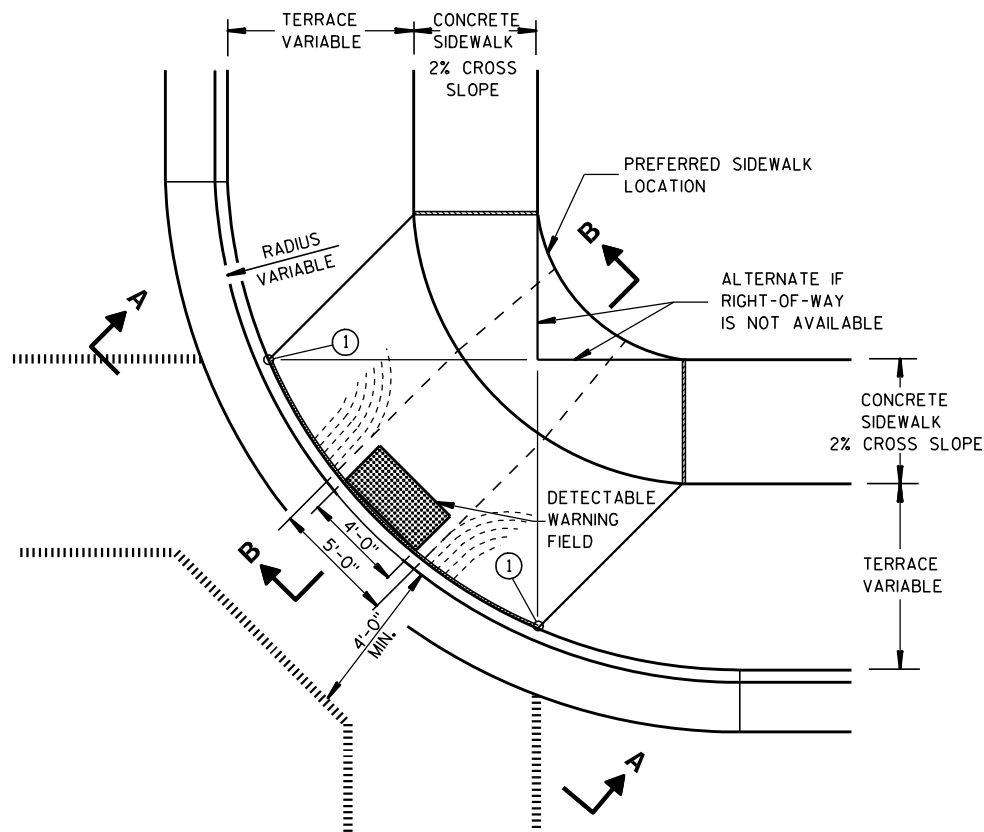
FHWA

/S/ Jerry H. 7000

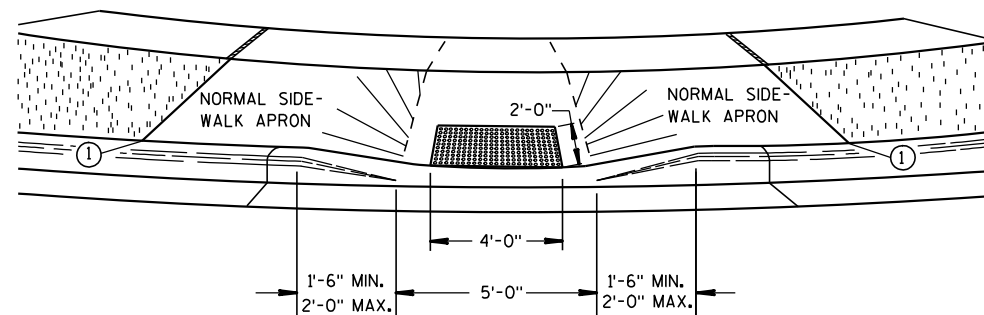
ROADWAY STANDARDS 131

ENGINEER

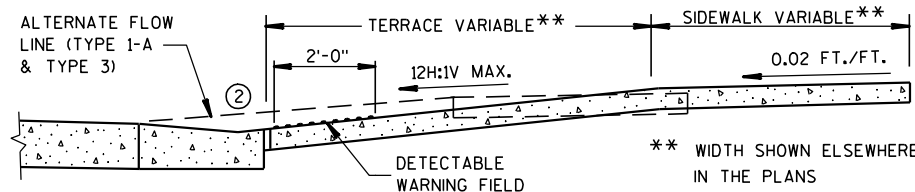
MENT



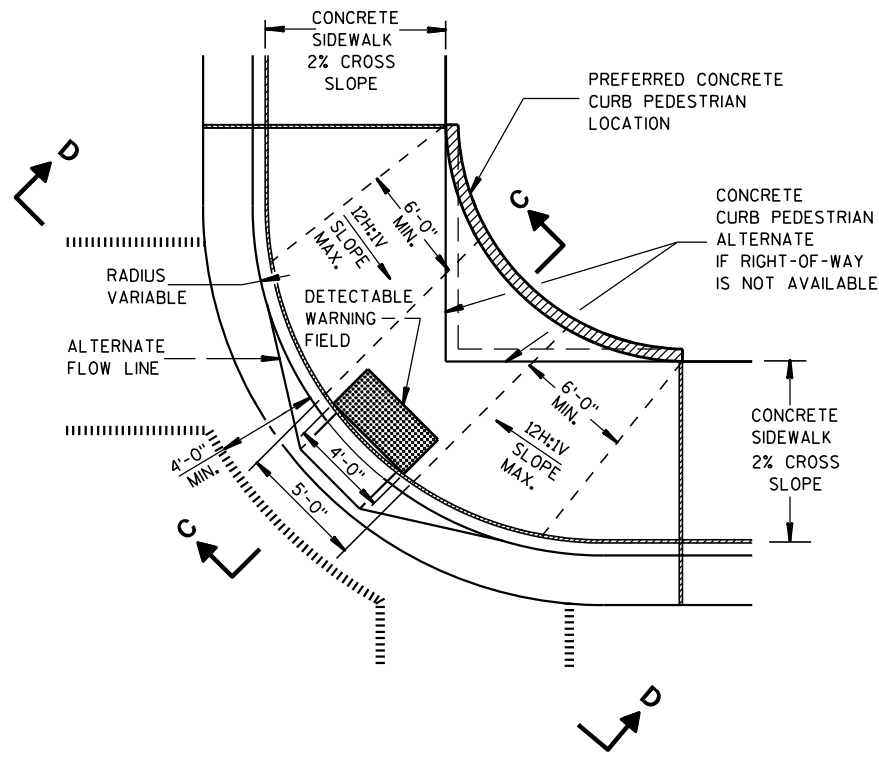
PLAN VIEW
TYPE 1 RAMP
(CENTER OF CORNER RADIUS)



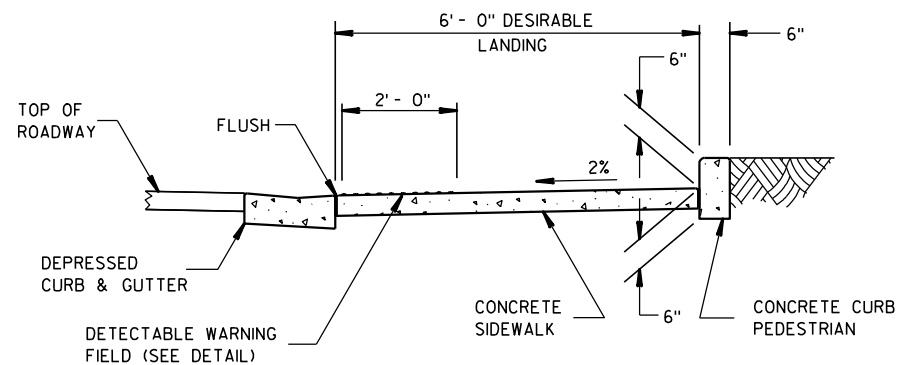
VIEW A-A



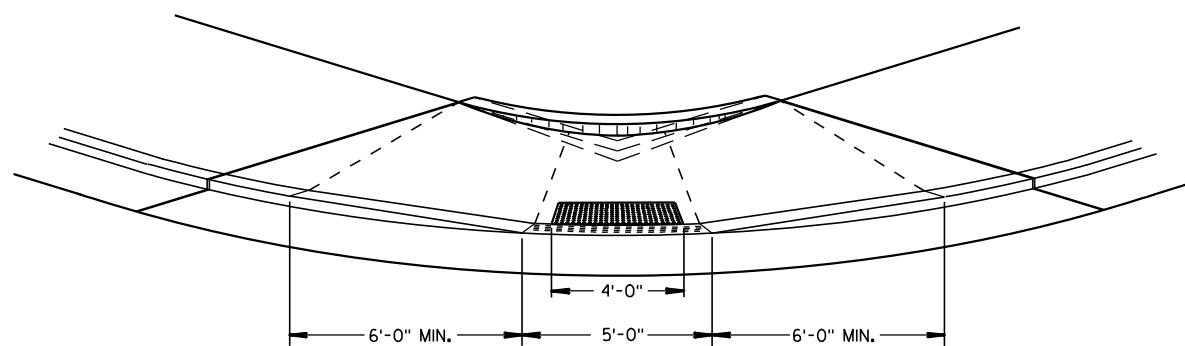
SECTION B-B



PLAN VIEW
TYPE 1-A RAMP
(NO TERRACE)



SECTION C-C



VIEW D-D

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

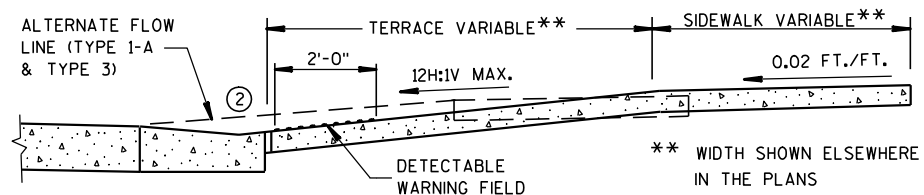
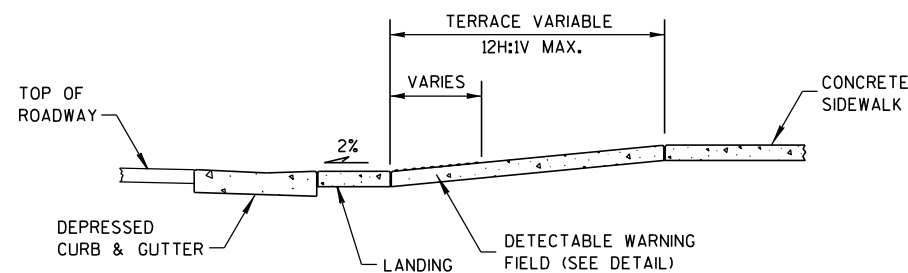
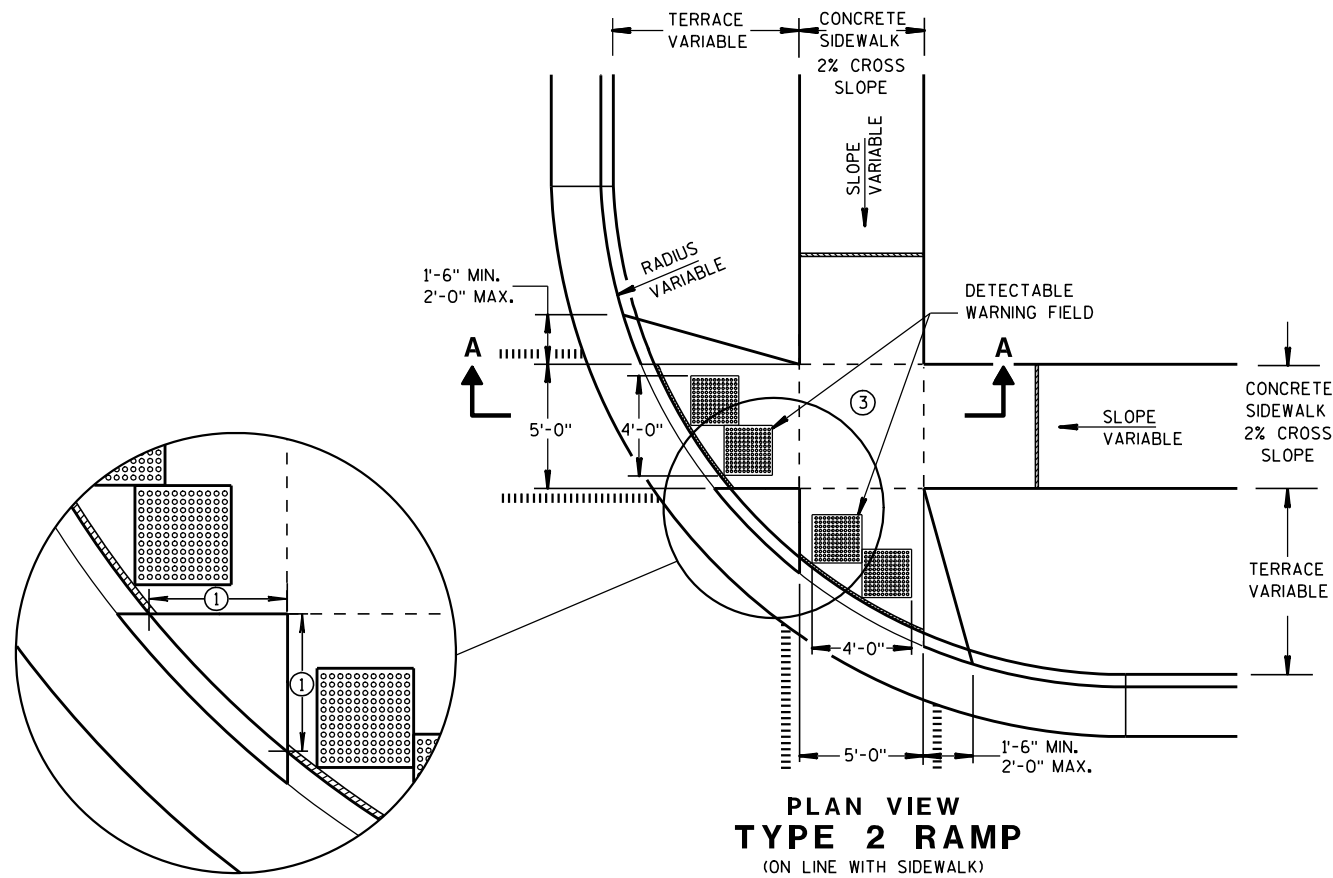
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



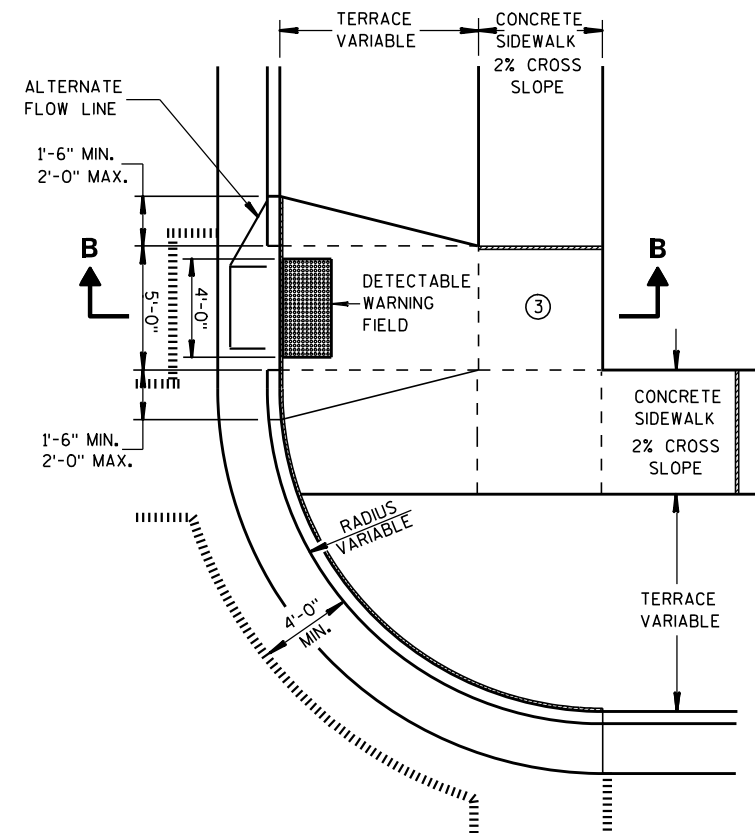
GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

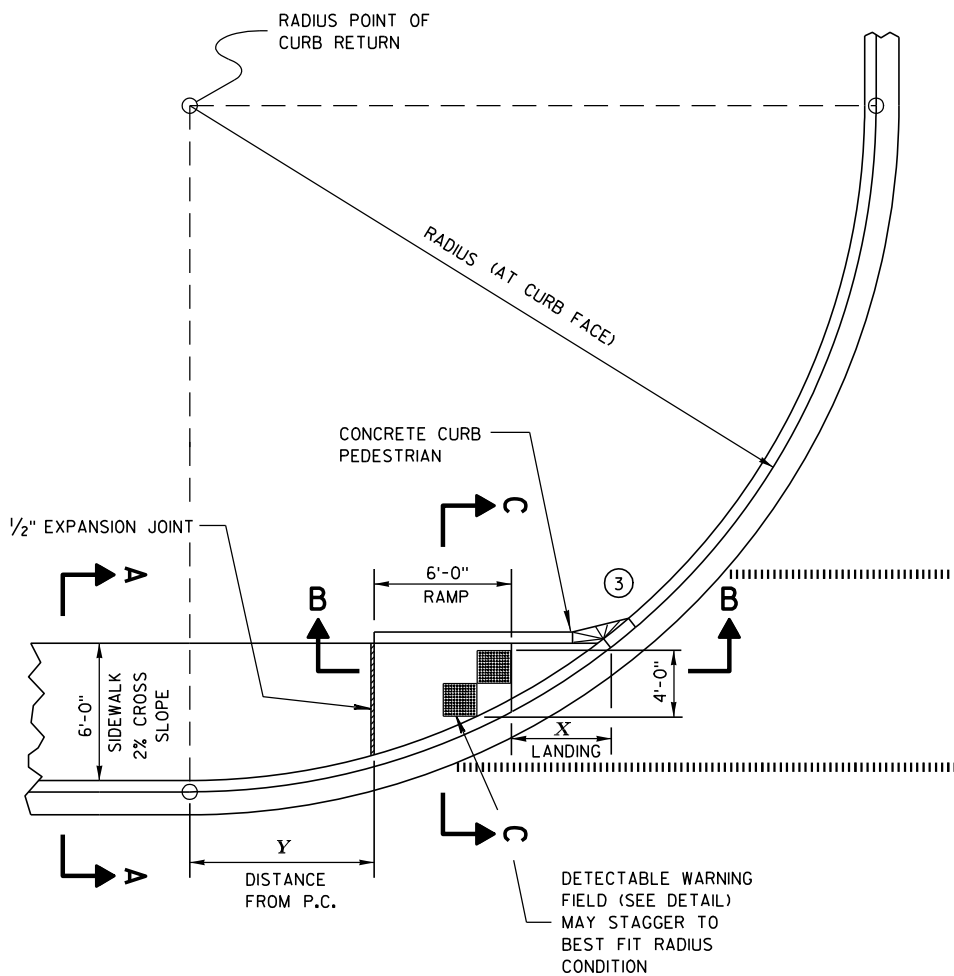
- ===== 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



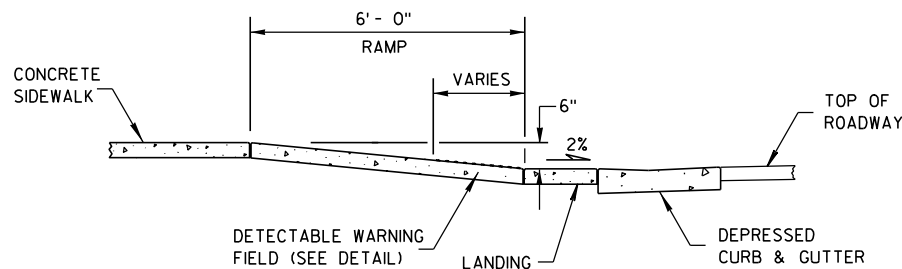
**PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)**

CURB RAMPS TYPES 2 AND 3

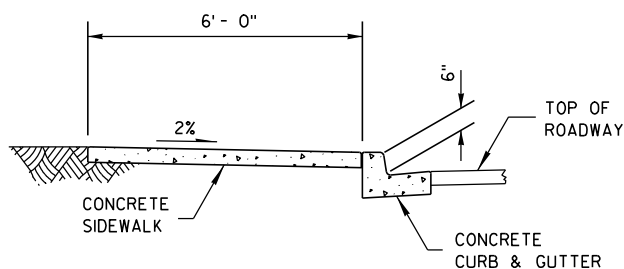
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



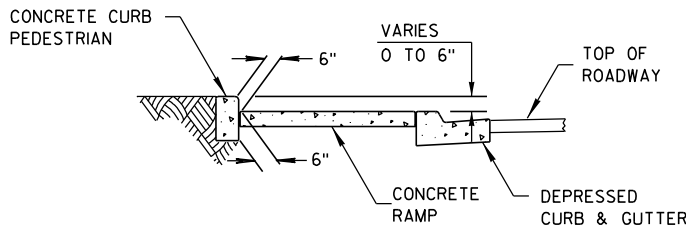
CURB RAMP TYPE 4A
PLAN VIEW



SECTION B-B



SECTION A-A



SECTION C-C

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 $\frac{3}{4}$ "	2'-7 $\frac{1}{4}$ "
30 FEET	7'-11 $\frac{3}{4}$ "	4'-8 $\frac{1}{4}$ "
40 FEET	9'-5 $\frac{1}{4}$ "	6'-5"
50 FEET	10'-8 $\frac{3}{4}$ "	7'-11 $\frac{1}{4}$ "
60 FEET	11'-10 $\frac{1}{4}$ "	9'-3 $\frac{1}{2}$ "

INTERMEDIATE RADII CAN BE INTERPOLATED

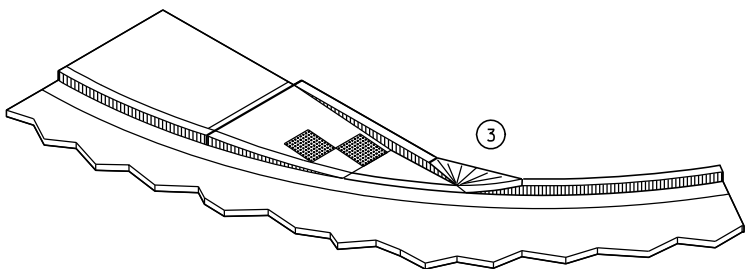
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.



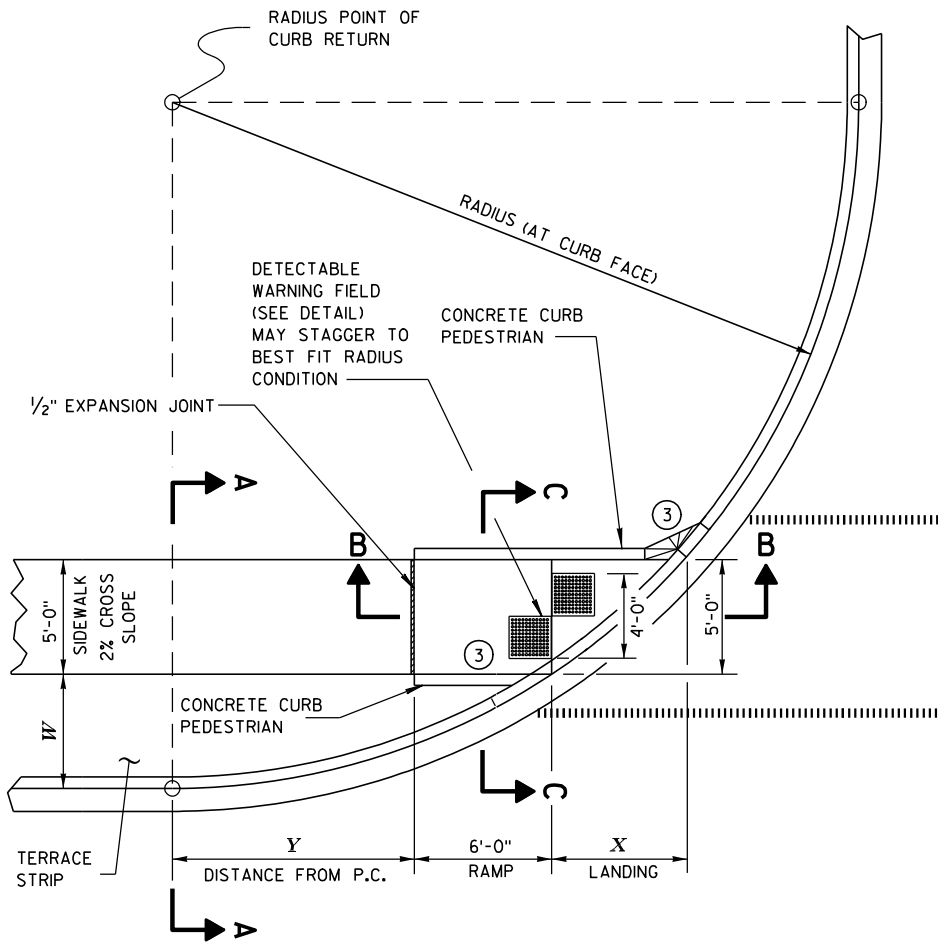
ISOMETRIC VIEW

LEGEND

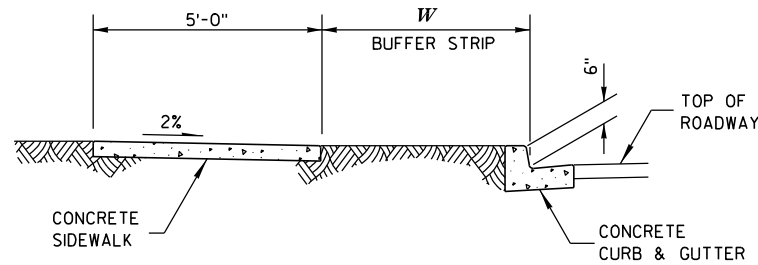
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
..... PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

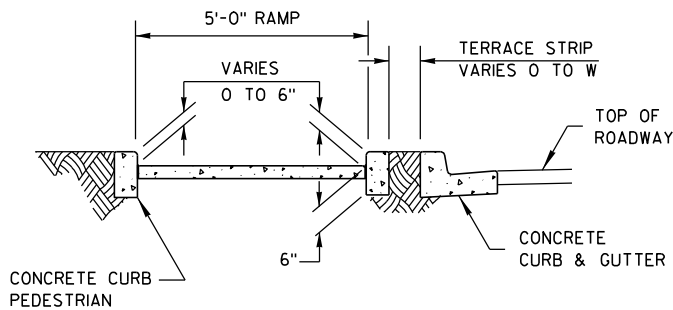
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



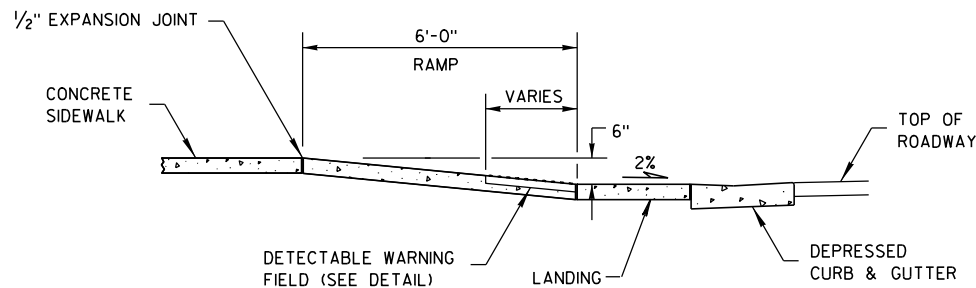
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A



SECTION C-C



SECTION B-B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

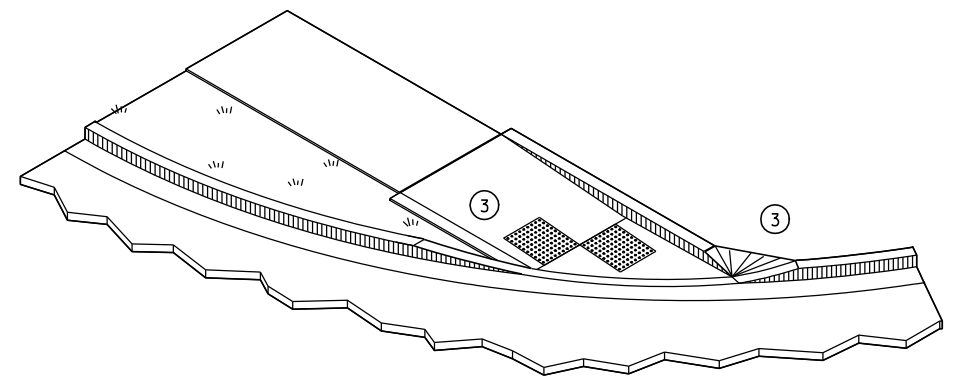
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'-½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



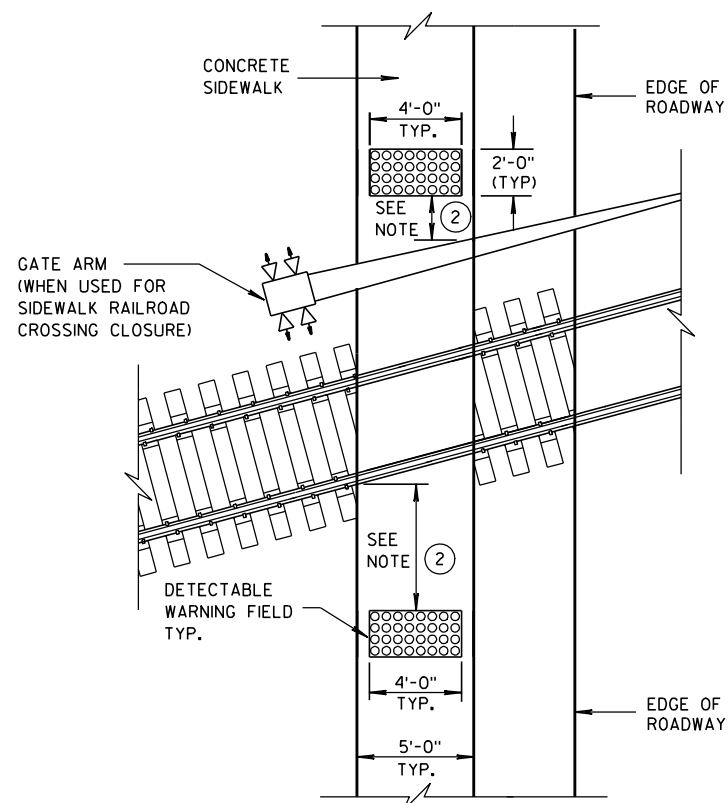
ISOMETRIC VIEW

LEGEND

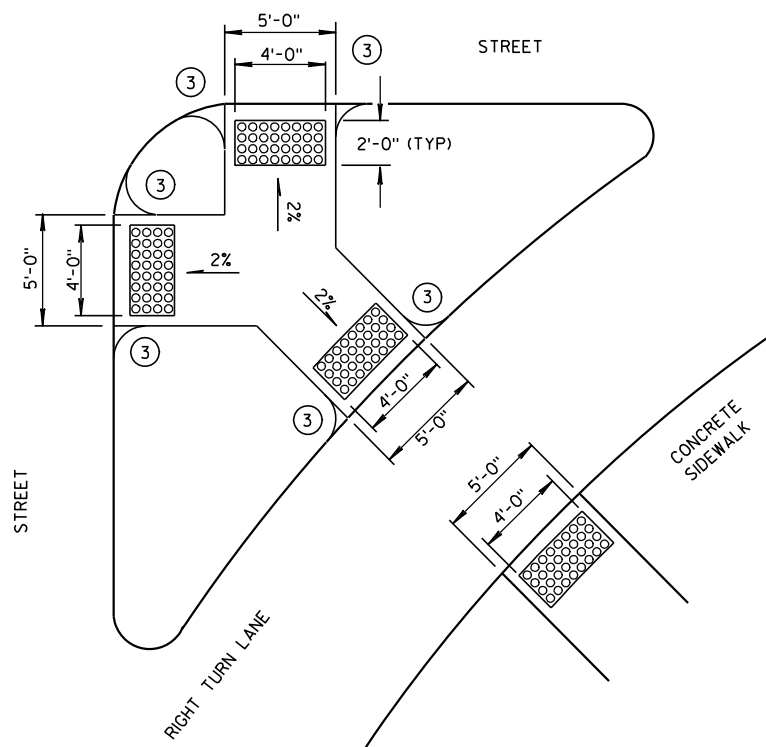
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4B

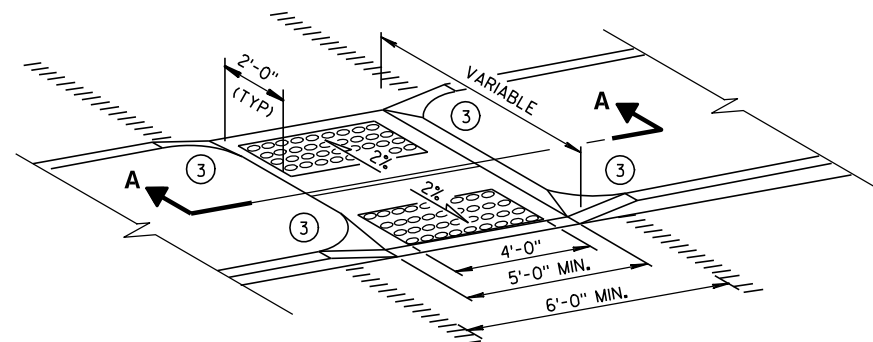
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



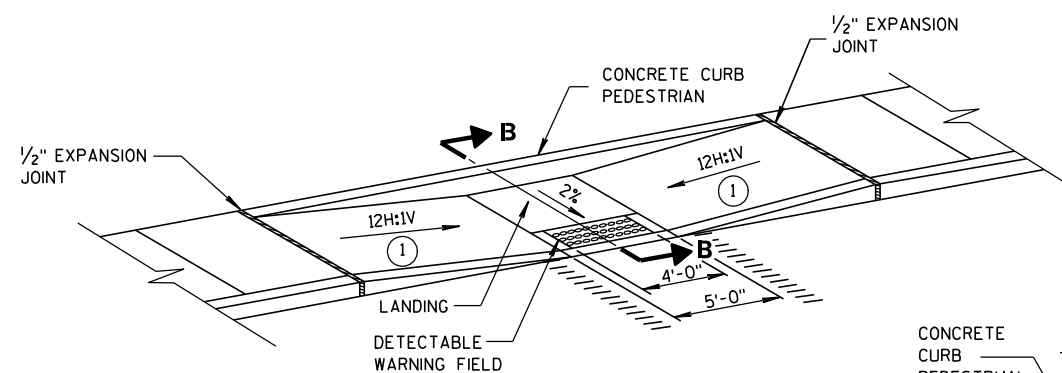
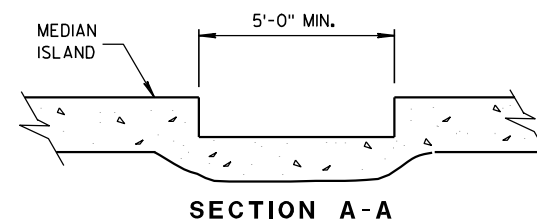
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



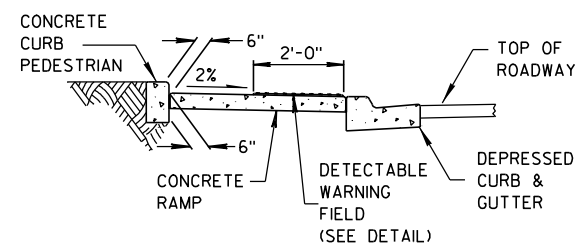
TYPE 6
DETECTABLE WARNING AT ISLANDS



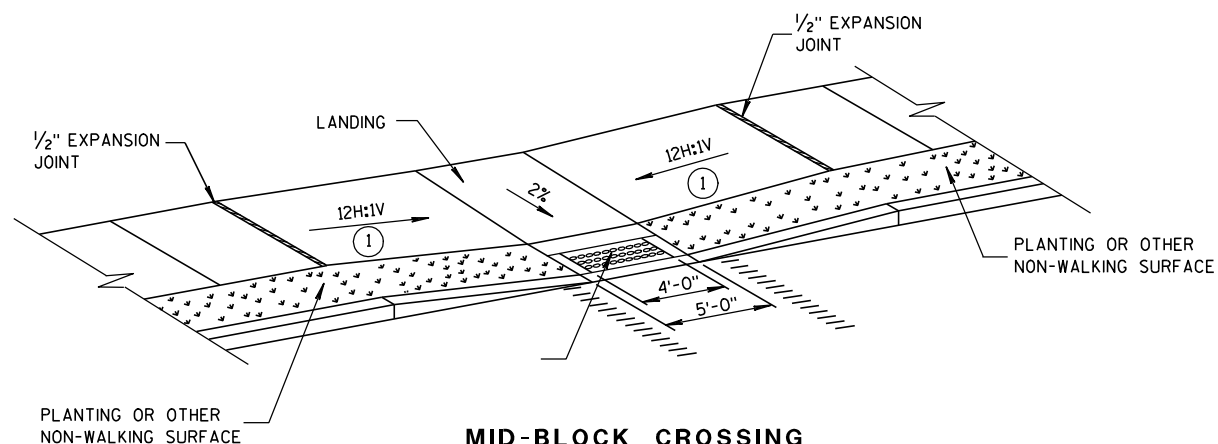
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

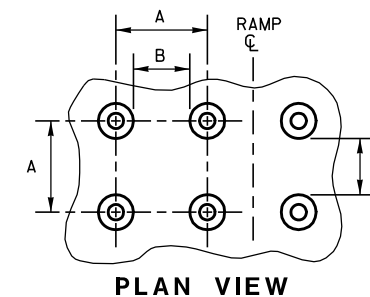
GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

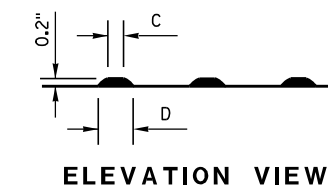
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

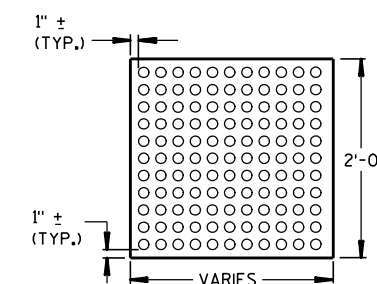
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

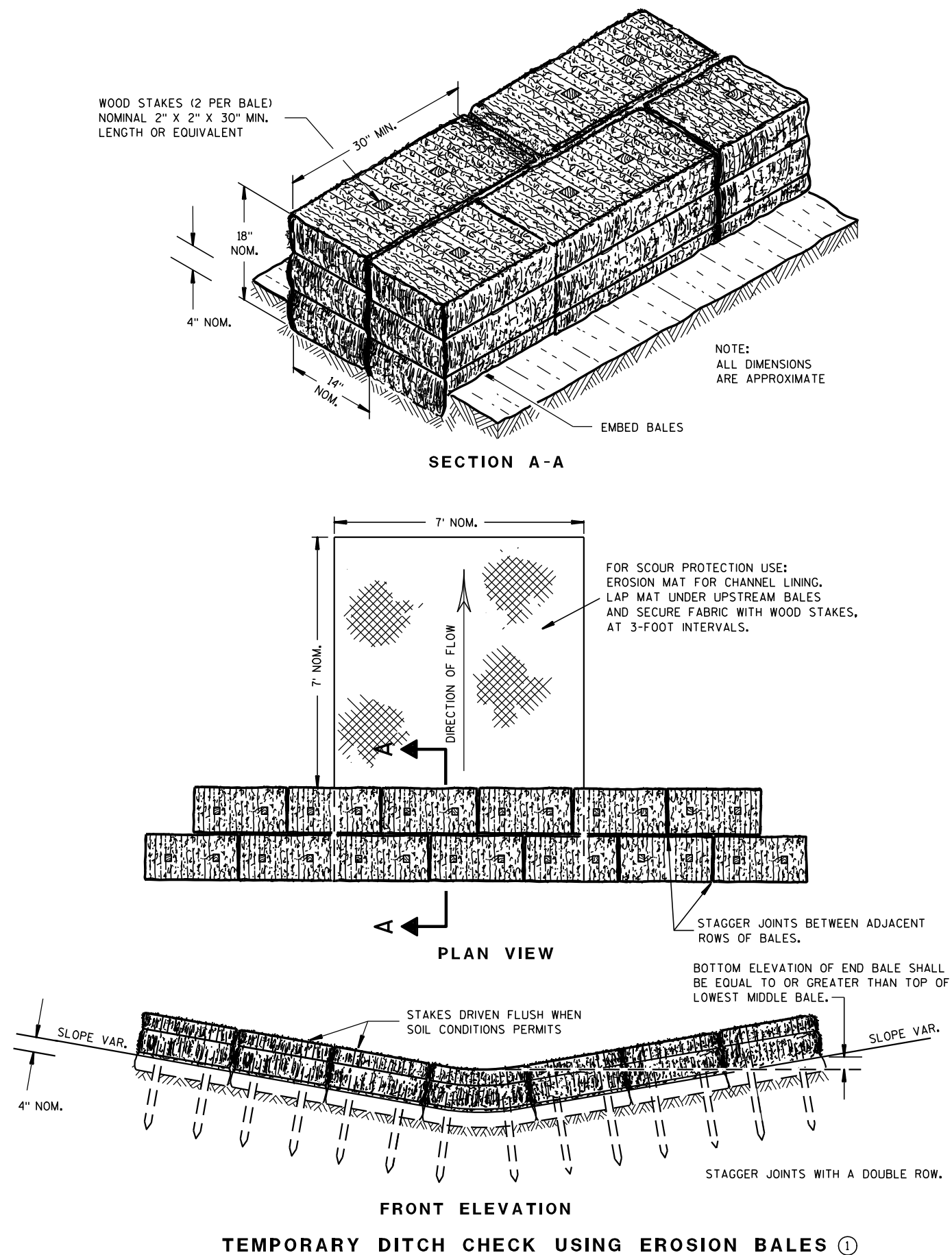
APPROVED

2-9-10
DATE

FHWA

/s/ Jerry H. Zogg

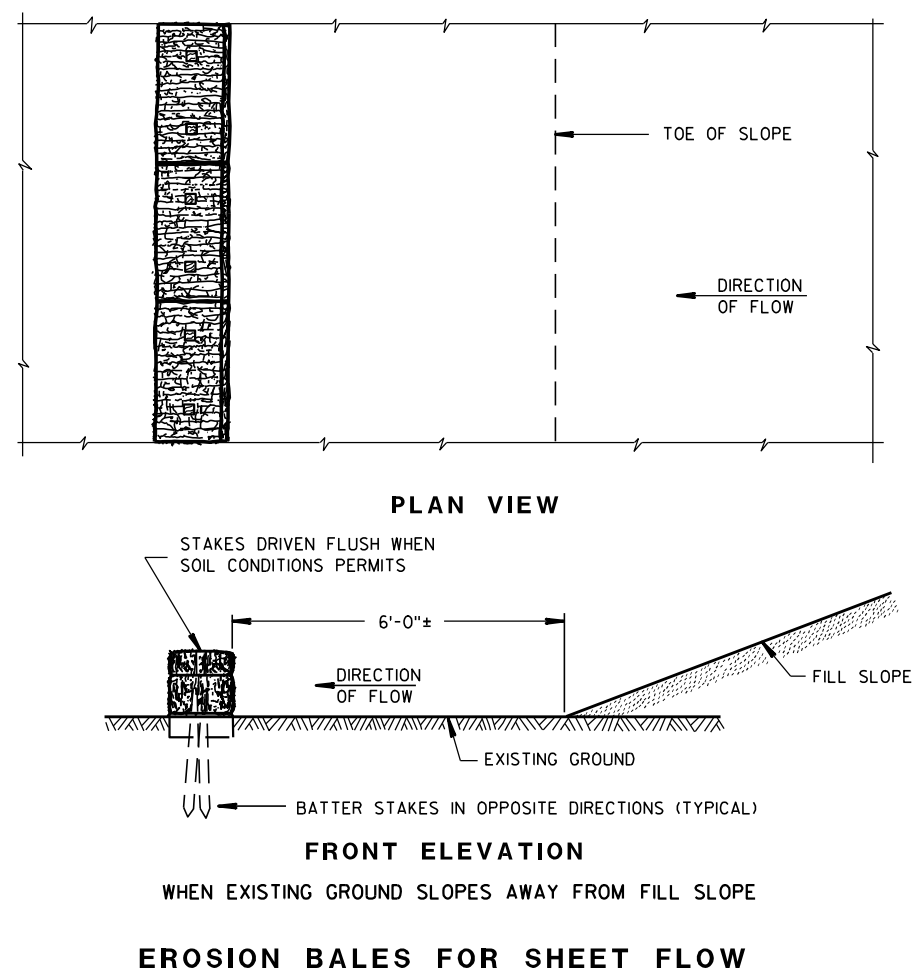
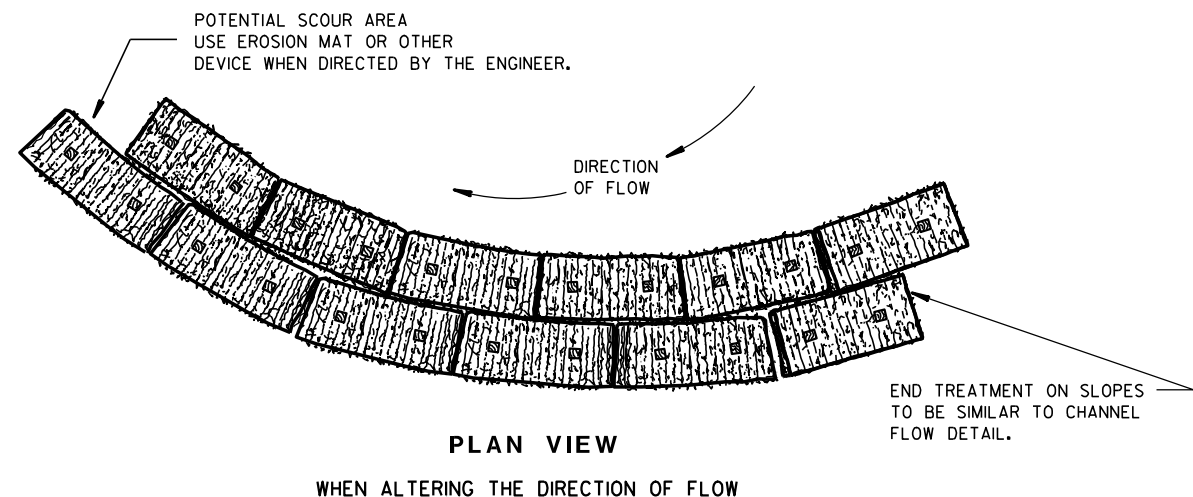
ROADWAY STANDARDS 136 ENT
ENGINEER



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

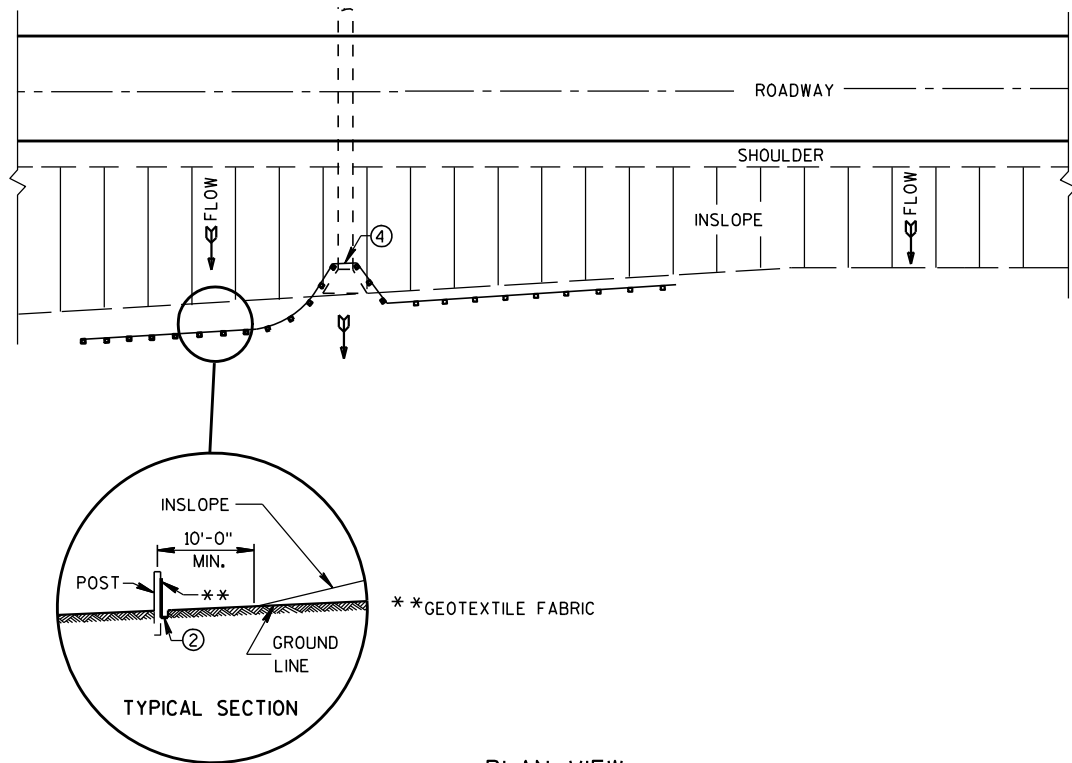
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

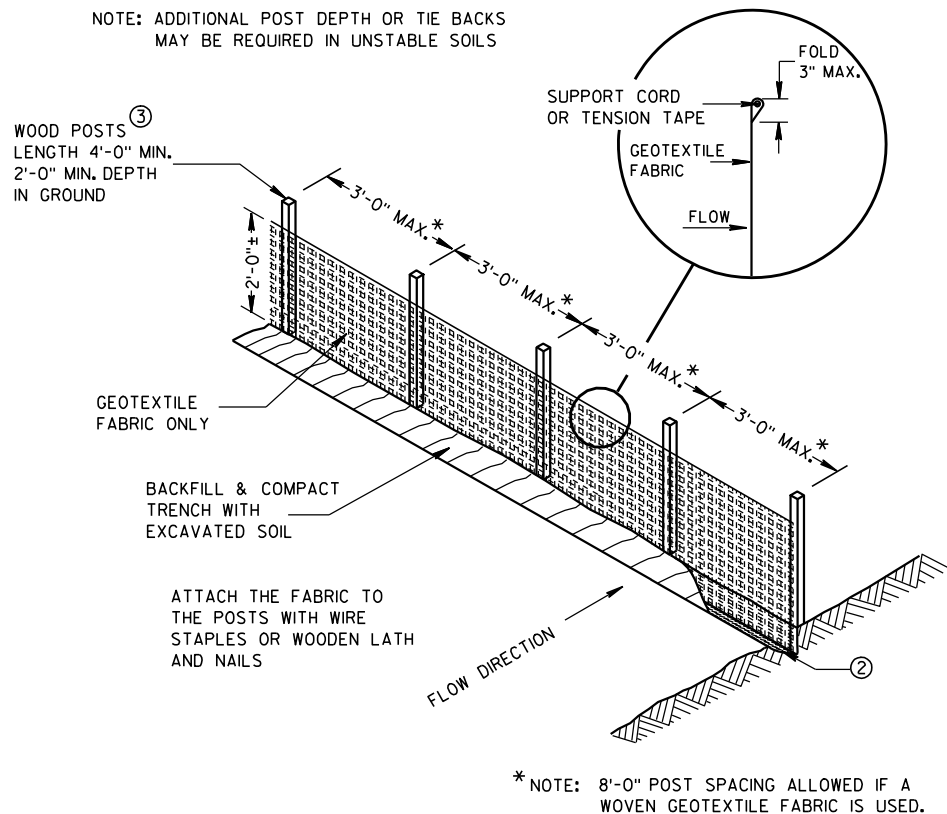
APPROVED

6/04/02
DATE/S/ Beth Conn
CHIEF ROADWAY DEVELOPER 137 ENGINEER

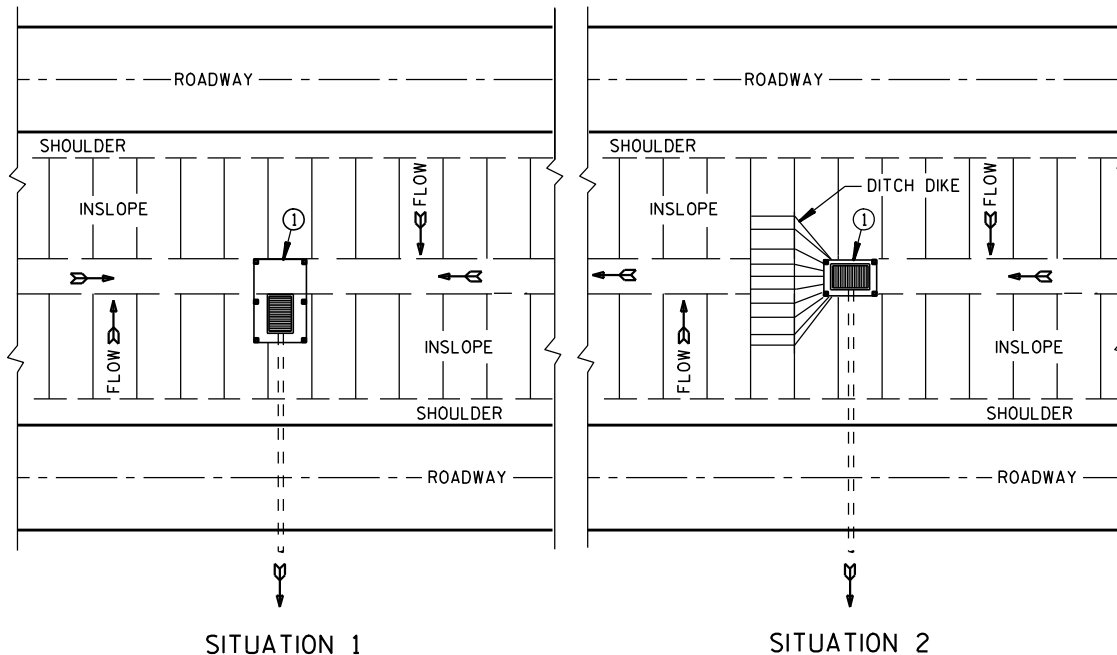
FHWA



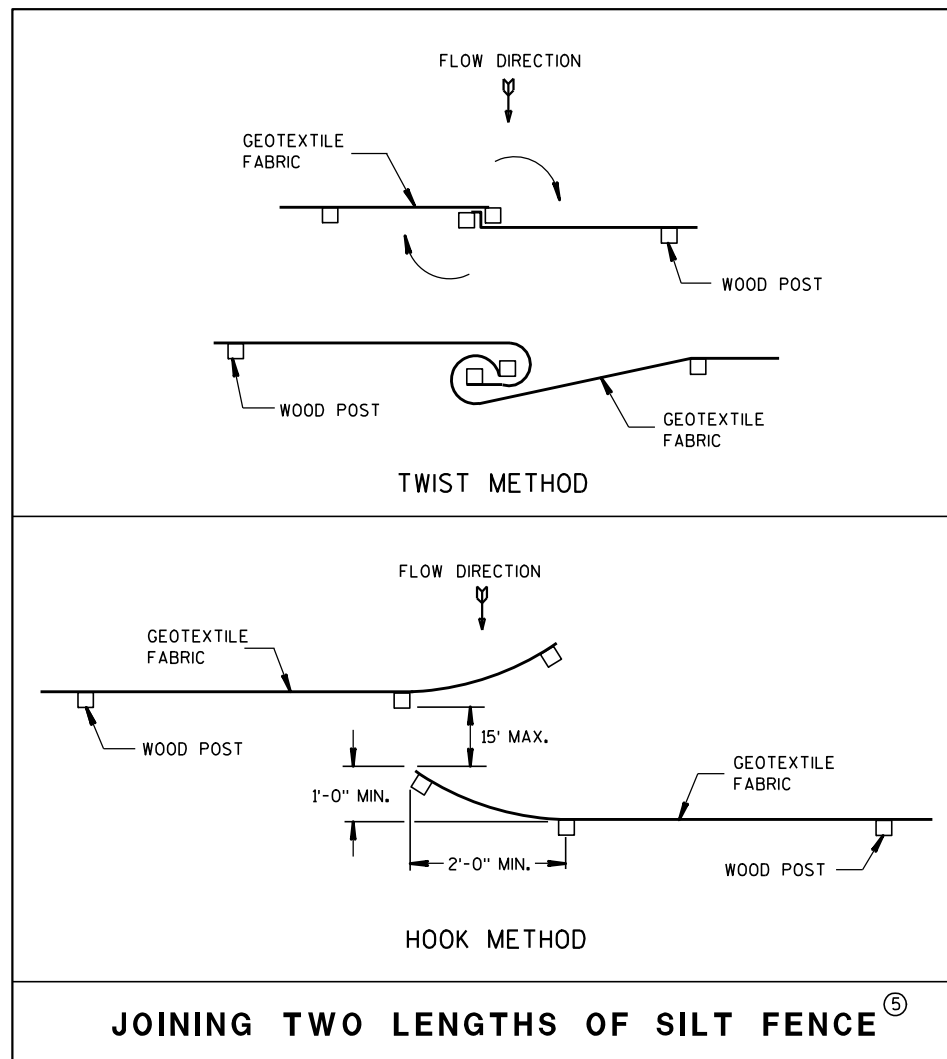
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

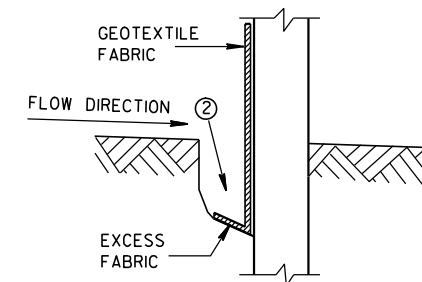


JOINING TWO LENGTHS OF SILT FENCE ⑤

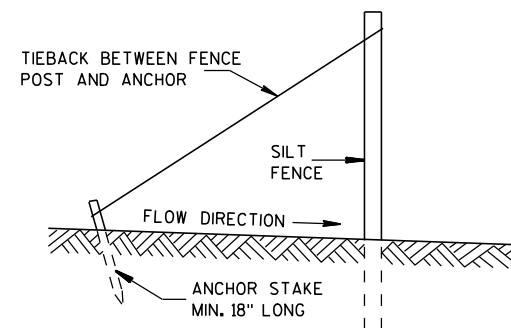
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

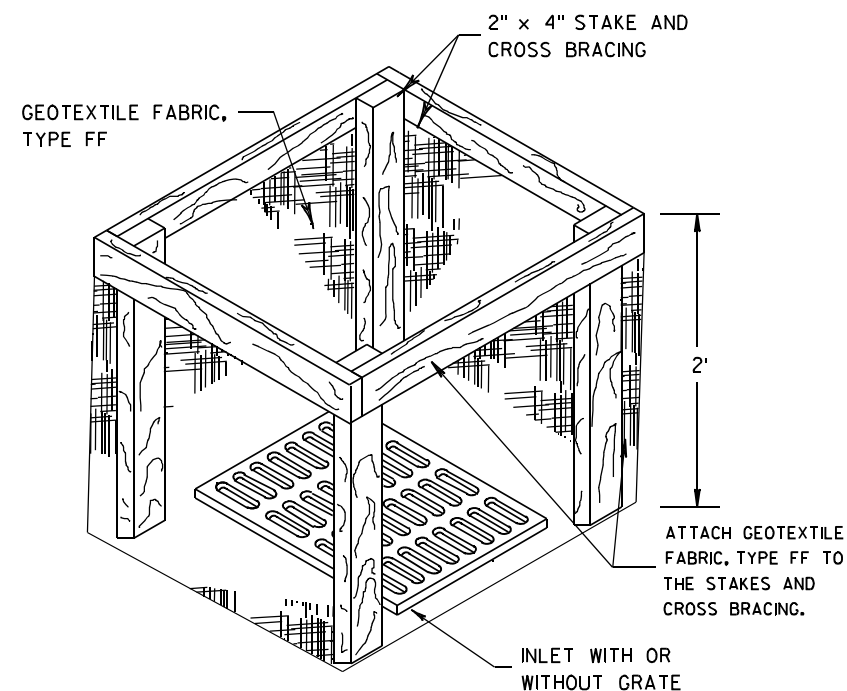
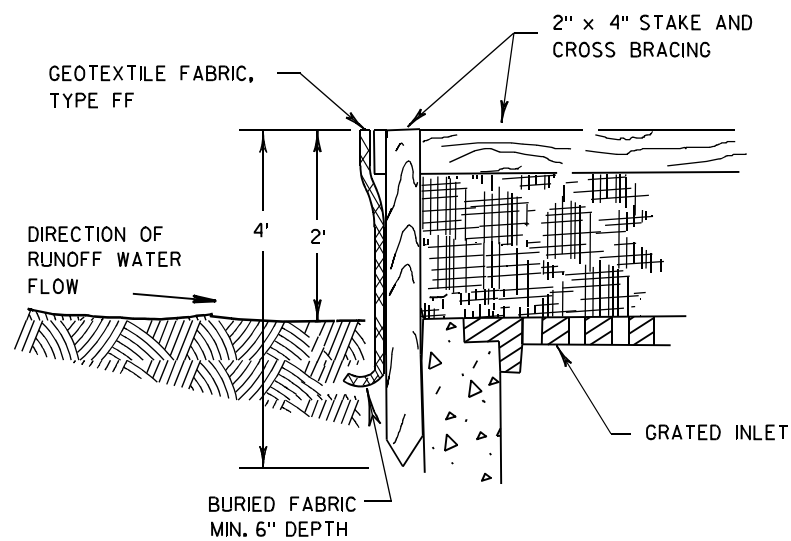


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Conn CHIEF ROADWAY DEVELOPER 138 ENGINEER
FHWA	



INLET PROTECTION, TYPE A

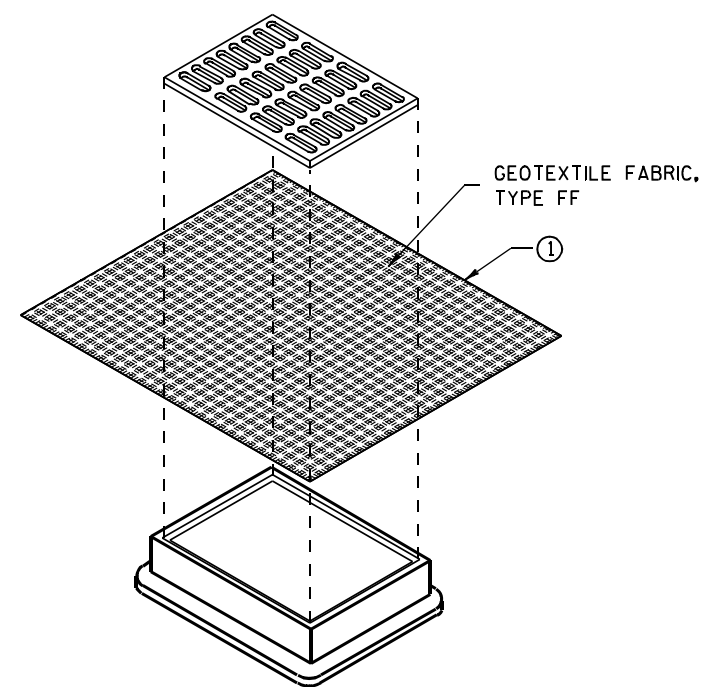
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

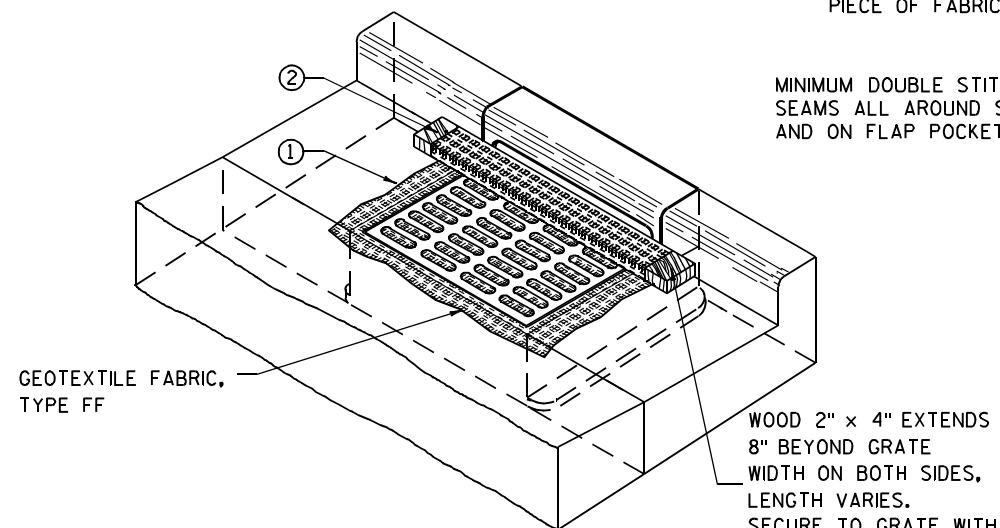
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

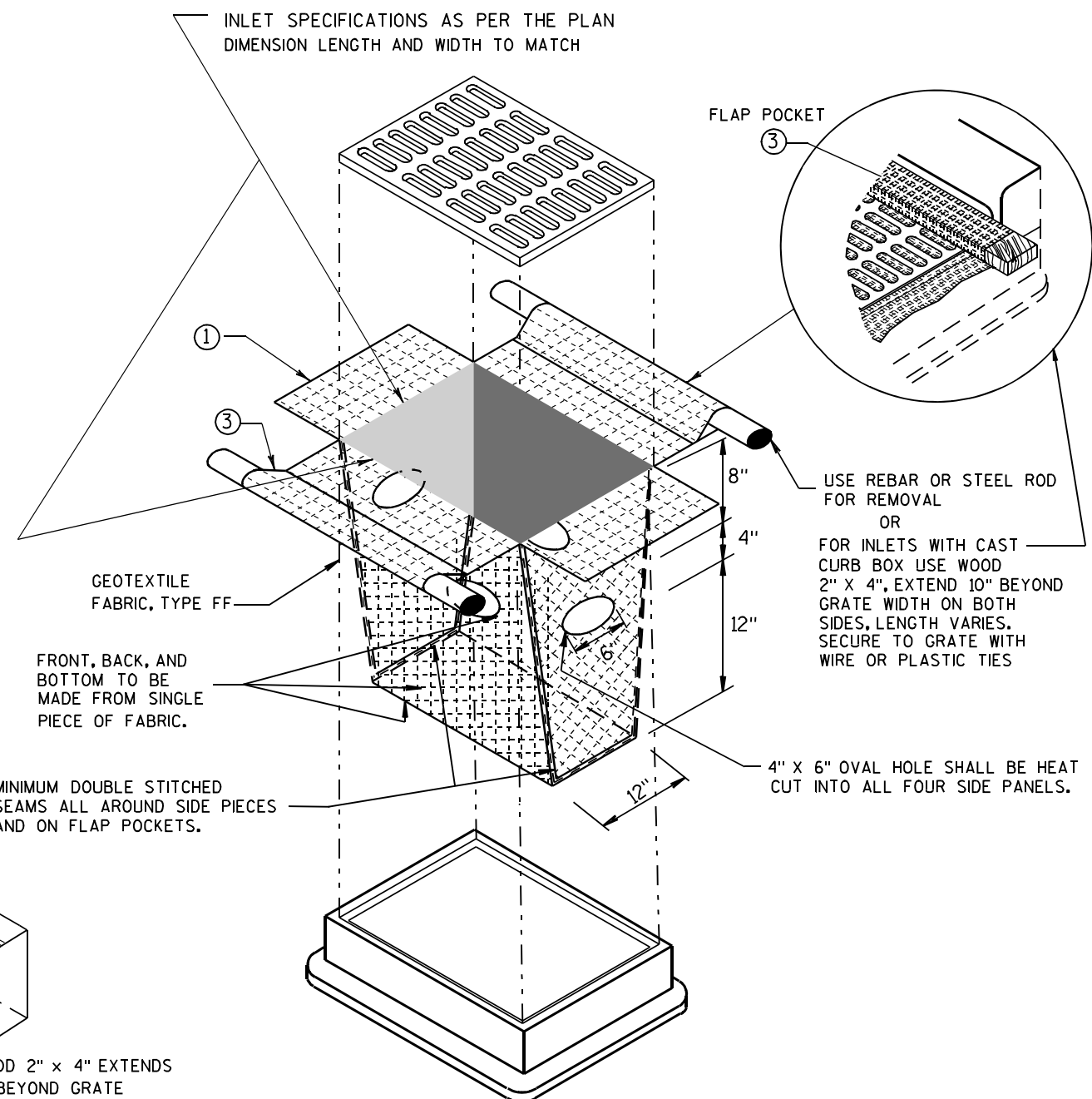
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



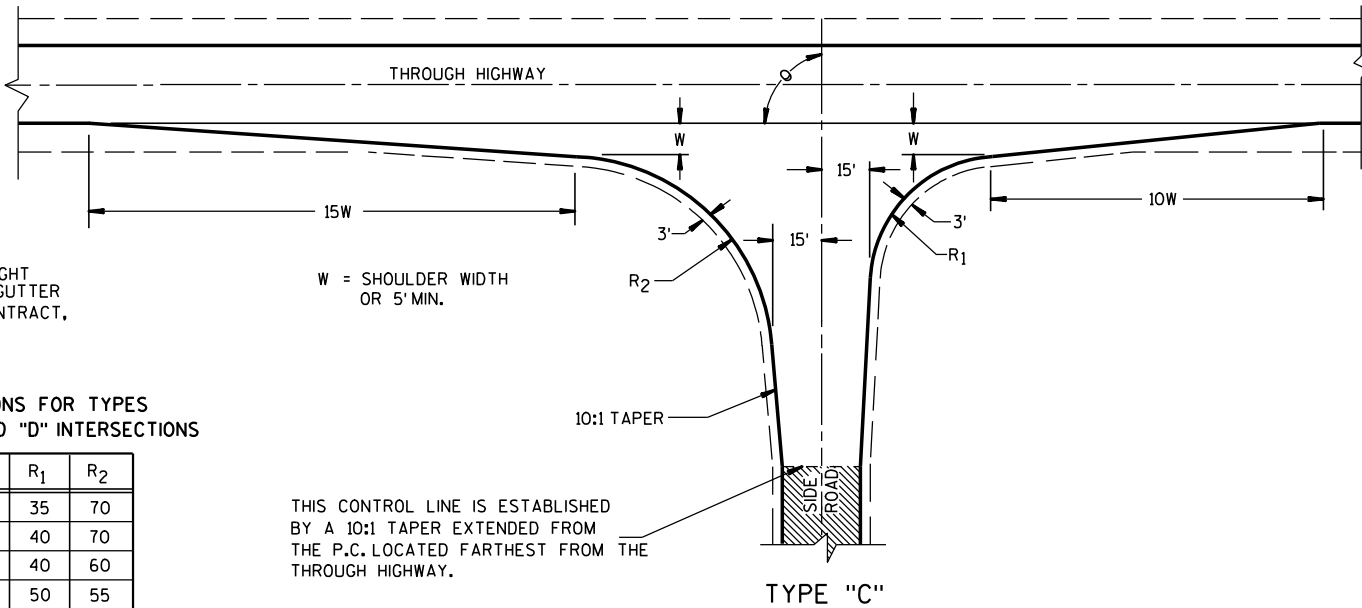
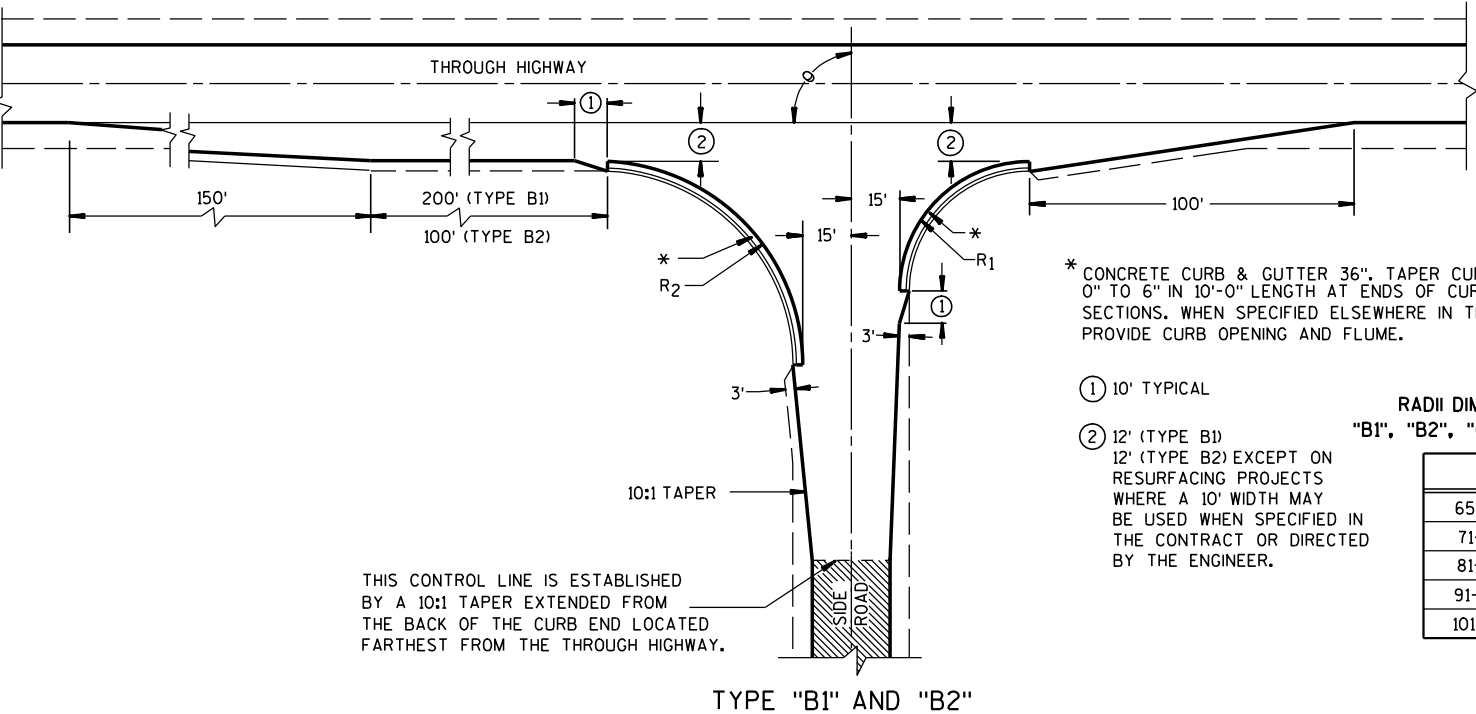
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 139
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

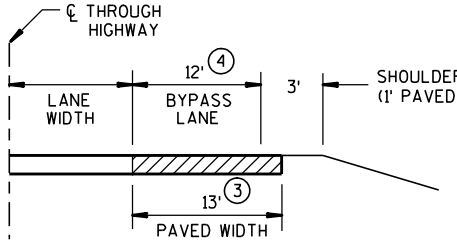
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

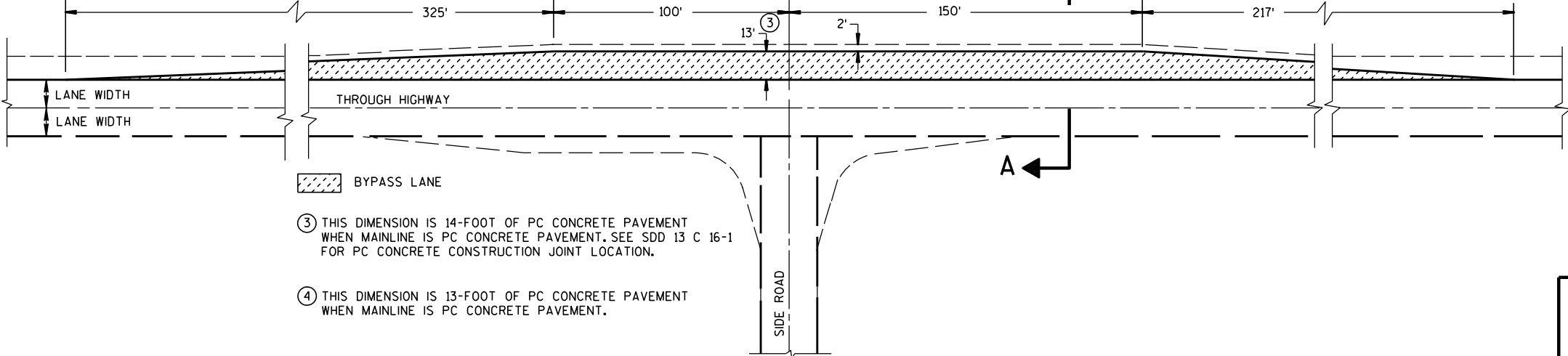
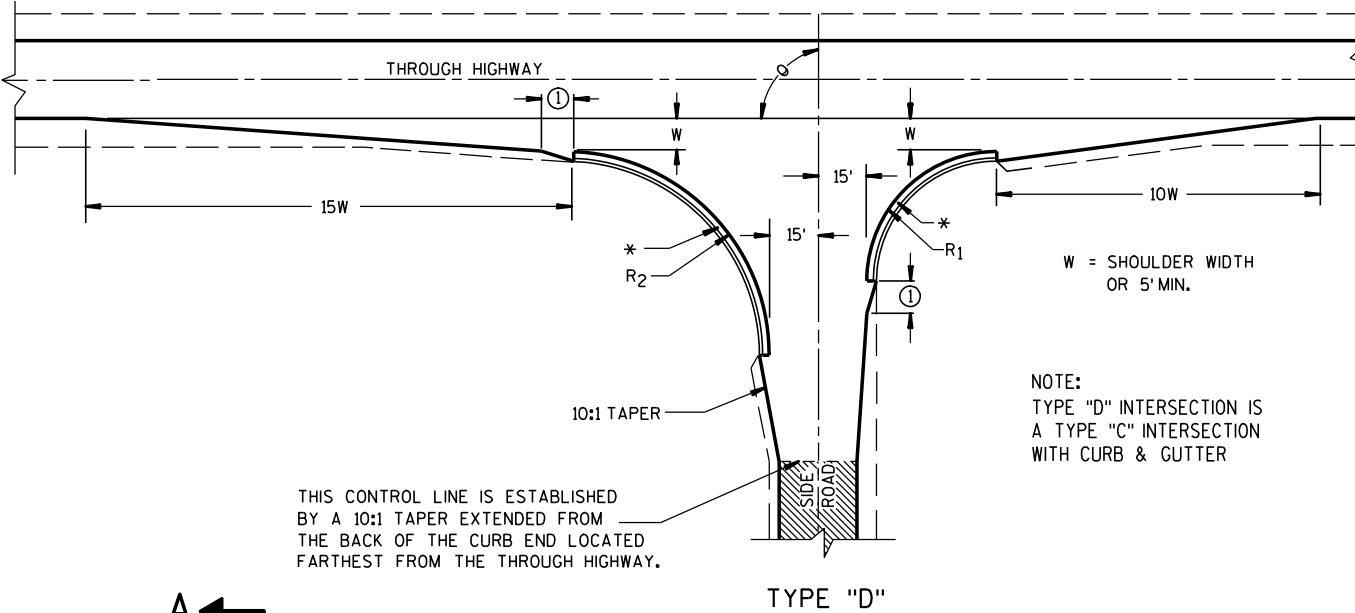
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING SURFACE



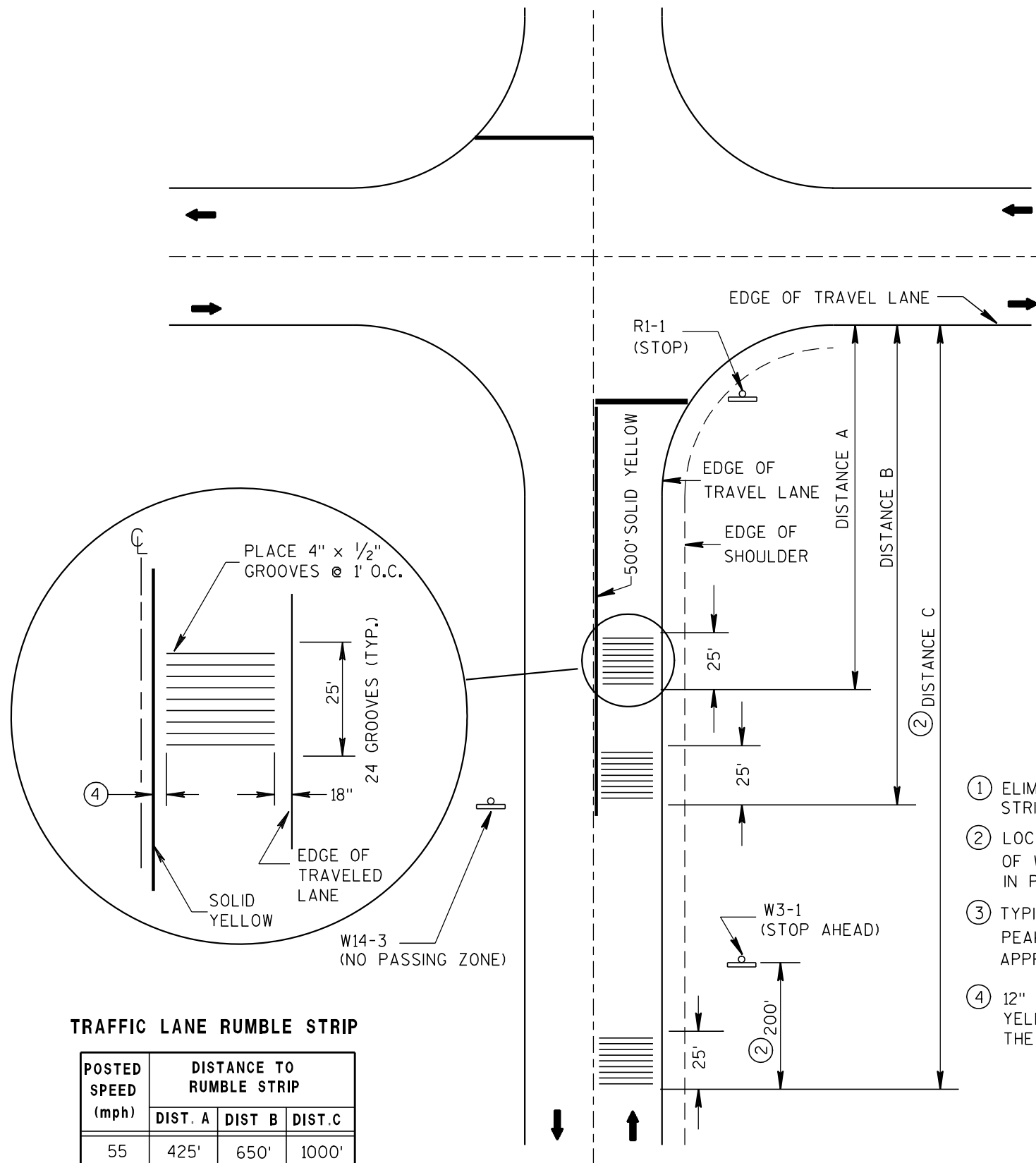
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD
INTERSECTION, TYPES "B1", "B2",
"C" AND "D" AND TEE
INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST. B	DIST. C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	①	550'
35	175'	①	475'
≤ 30	125'	①	425'

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

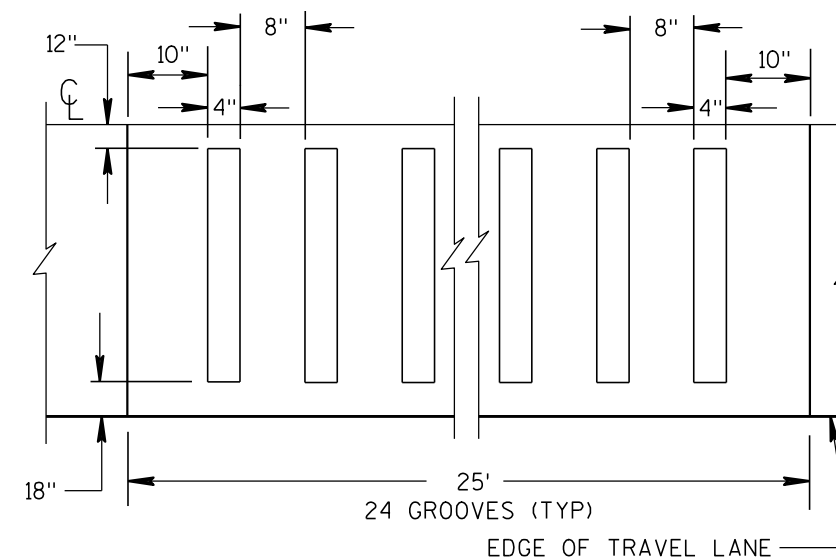
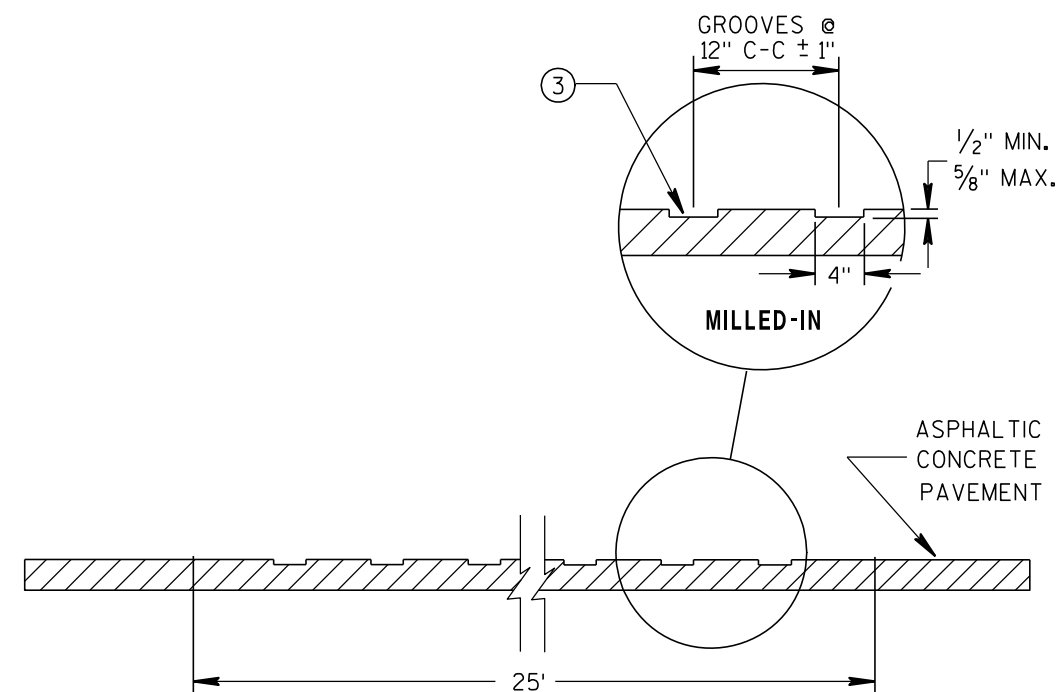
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY $\frac{1}{16}$ "
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

ASPHALTIC RUMBLE STRIPS
AT INTERSECTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/17/2011

DATE

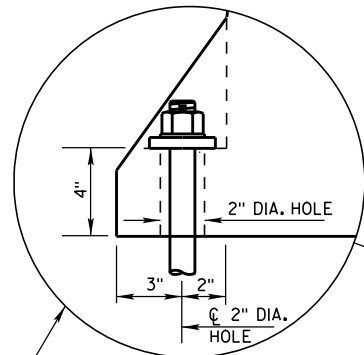
FHWA

/s/ Jerry H. Zogg

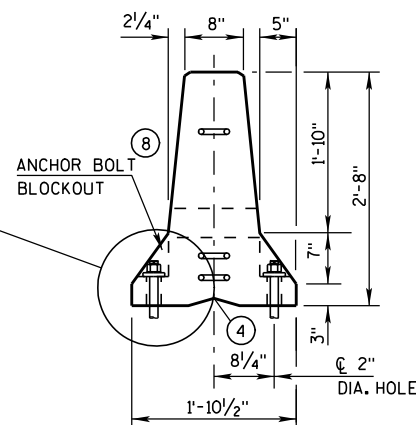
ROADWAY STANDARDS 141

ENGINEER

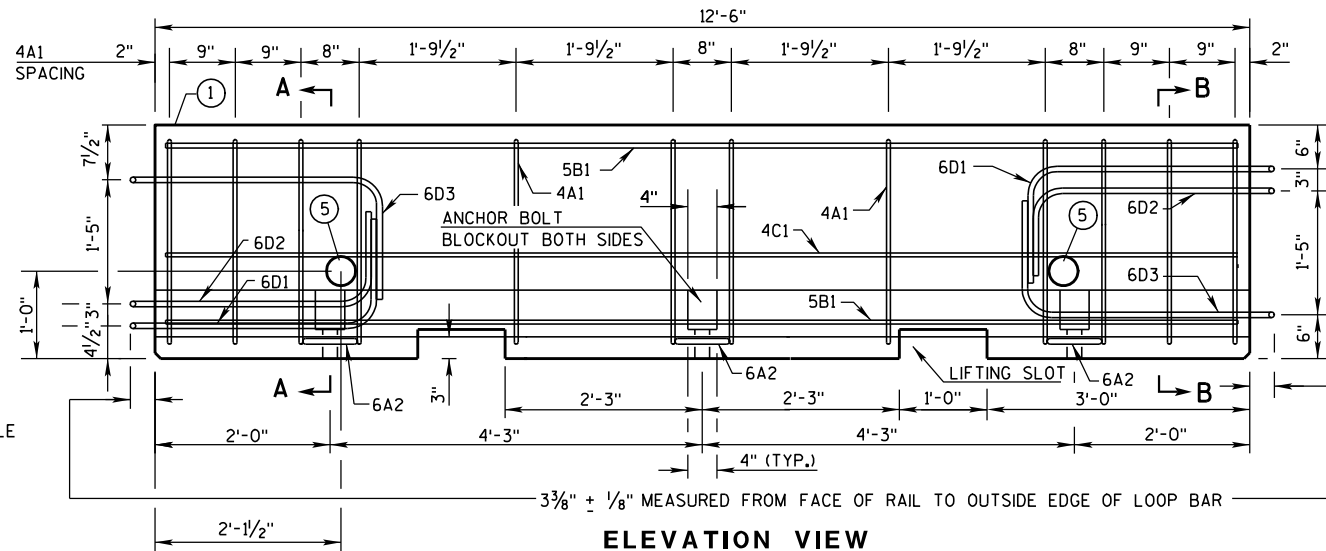
ENT



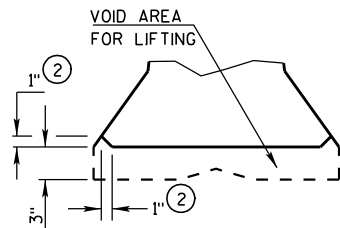
ANCHOR ON TRAFFIC SIDE
ONLY WHEN REQUIRED
(SEE SHEET D FOR ADDITIONAL
ANCHOR DETAIL)



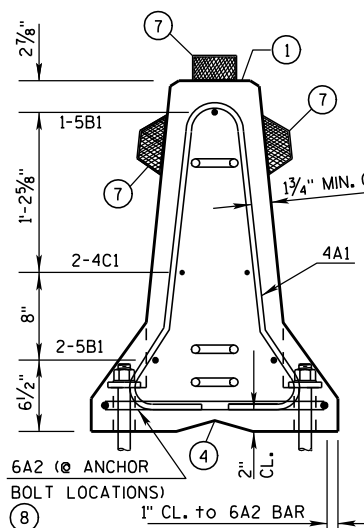
END VIEW



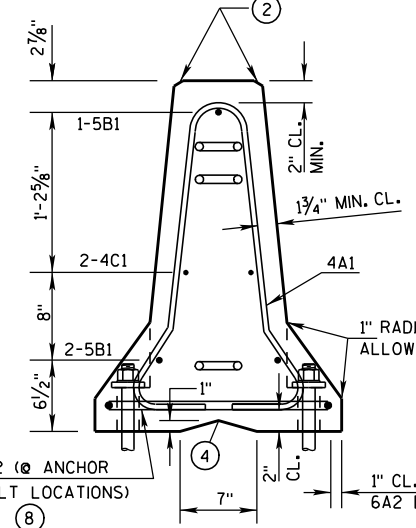
ELEVATION VIEW



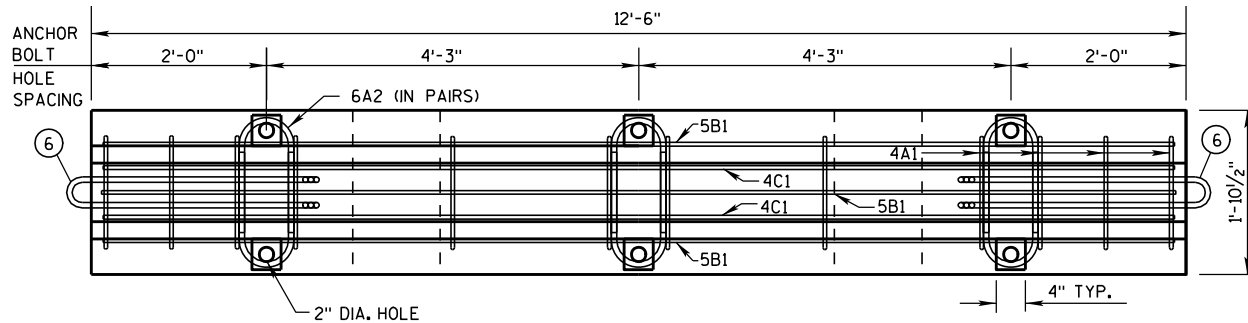
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

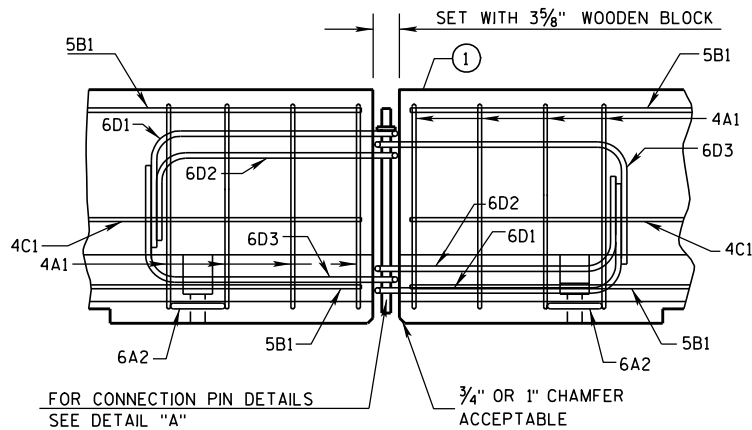


SECTION B-B
(STIRRUP PLACEMENT)

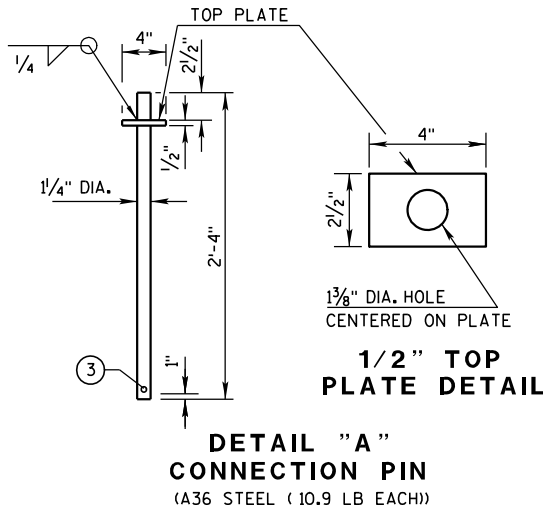


PLAN VIEW

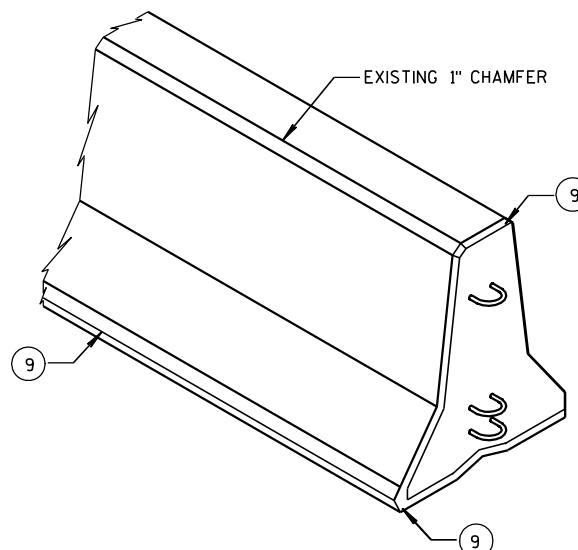
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(g) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

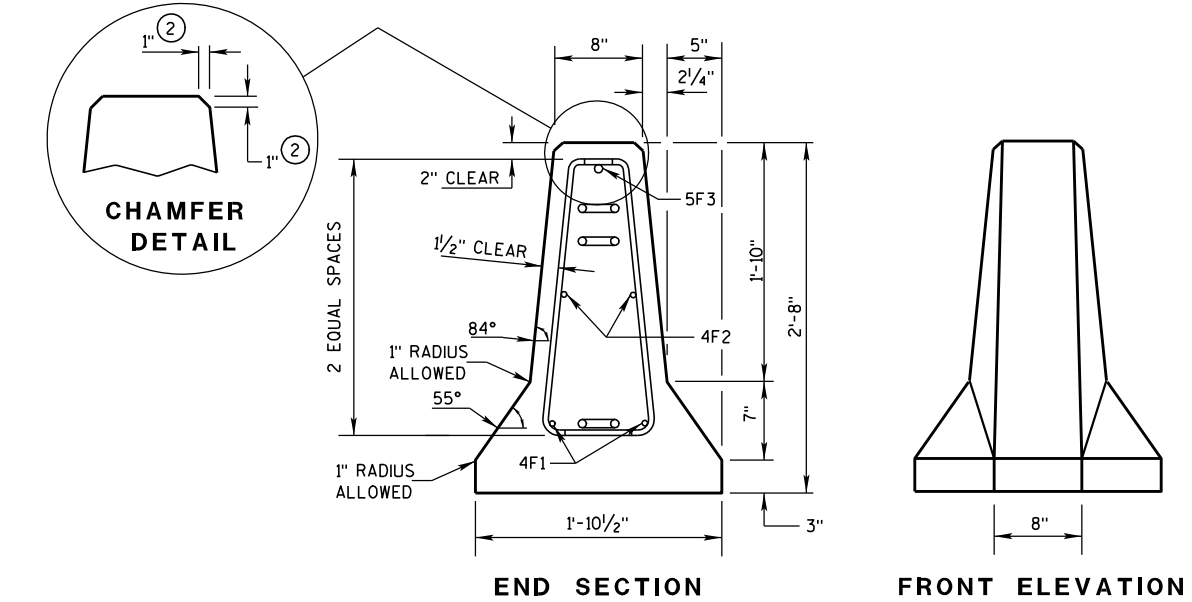
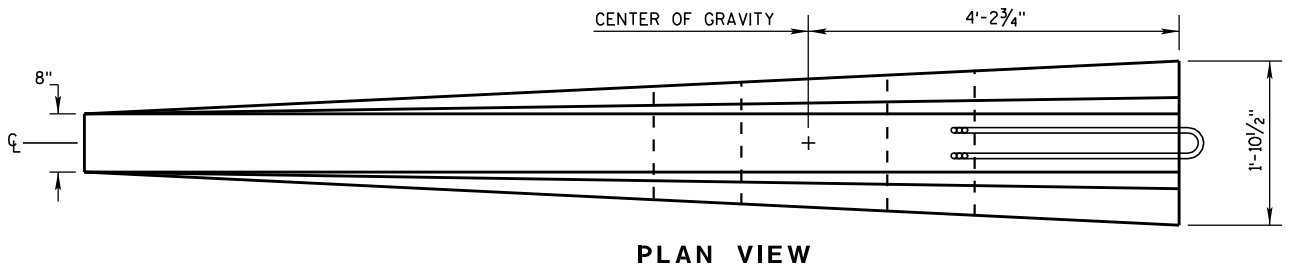
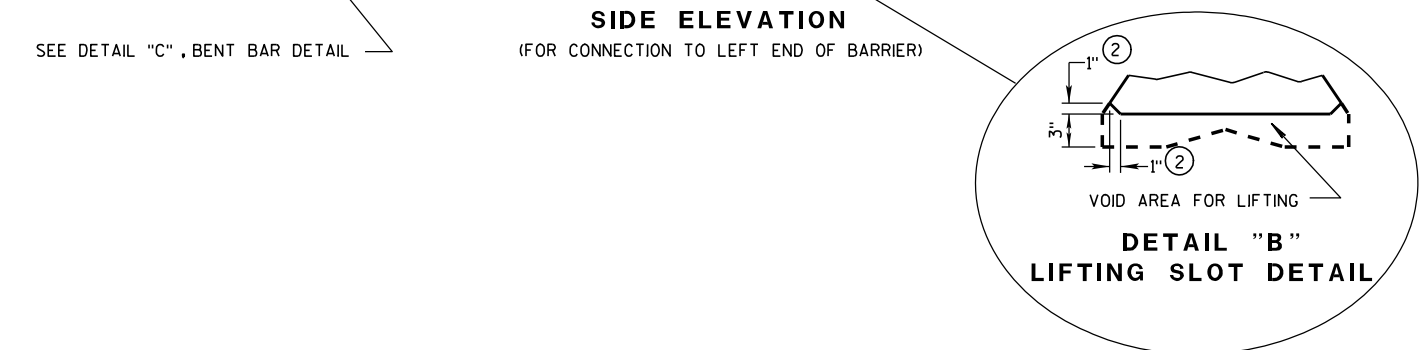
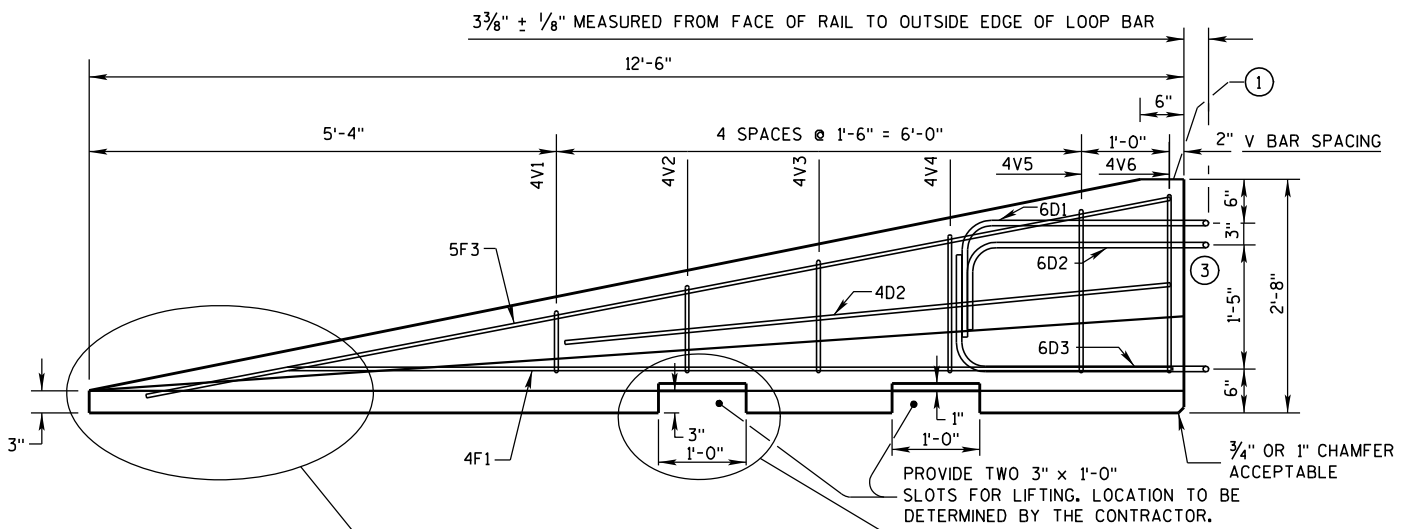
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

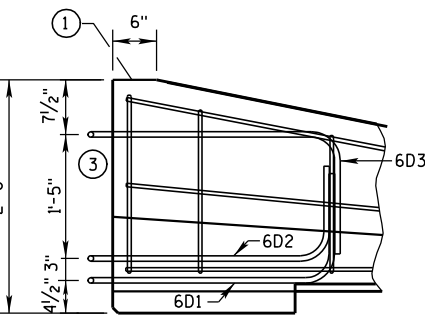
- MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - TYPE: WICBTP
 - MANUFACTURER
 - DATE MANUFACTURED (MONTH AND YEAR)
- 1" CHAMFER TO PREVENT SPALLING.
- A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- "V" NOTCH IS OPTIONAL.
- THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- SEE SHEET D FOR ANCHORING CRITERIA.
- 1" CHAMFER OPTIONAL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



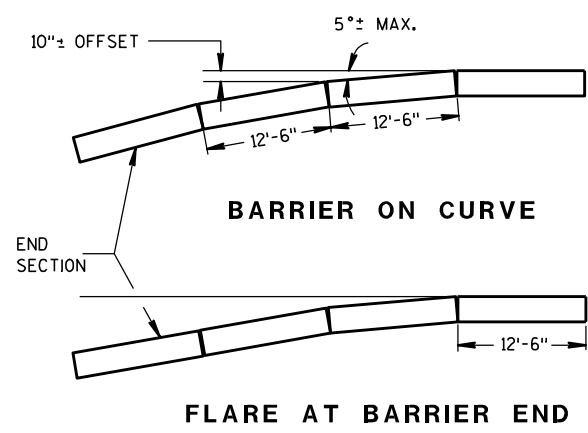
DETAILS OF BARRIER TAPER SECTION



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE W/CBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

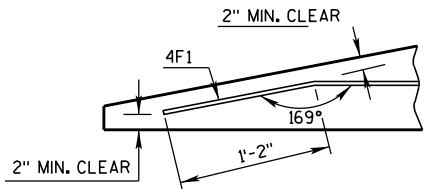
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

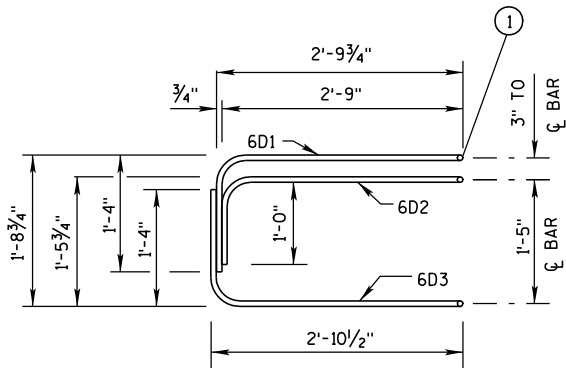
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

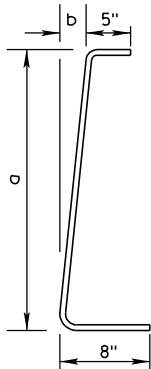
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS

2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

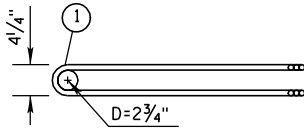
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

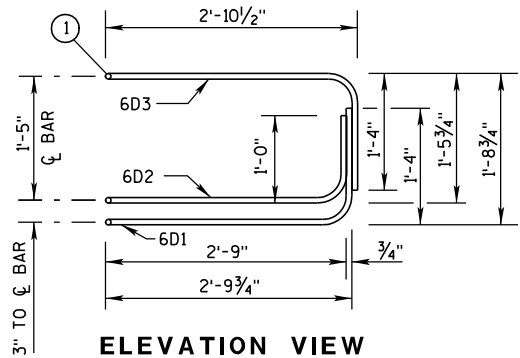
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

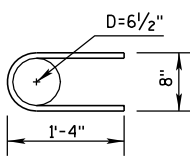


PLAN VIEW
LOOP BAR ASSEMBLY

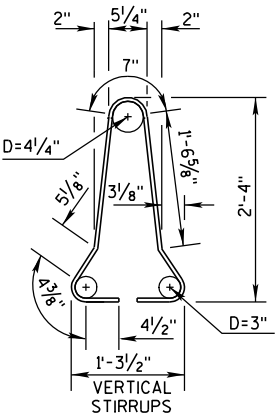
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

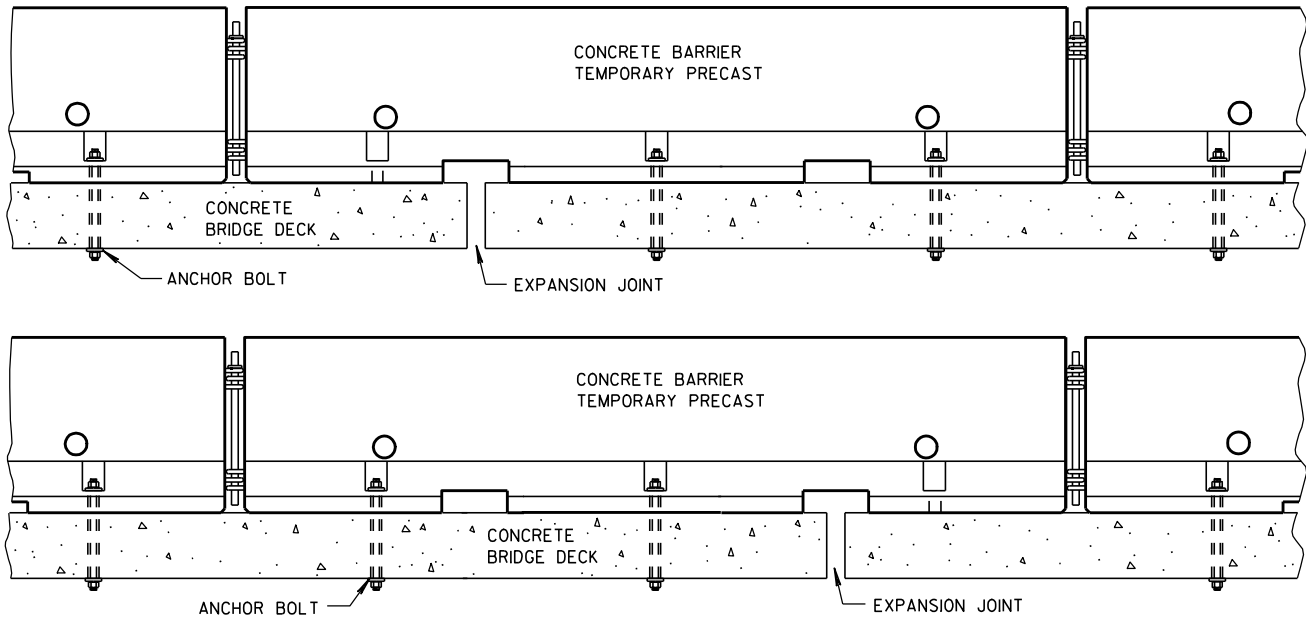


4A1

BARRIER SECTION

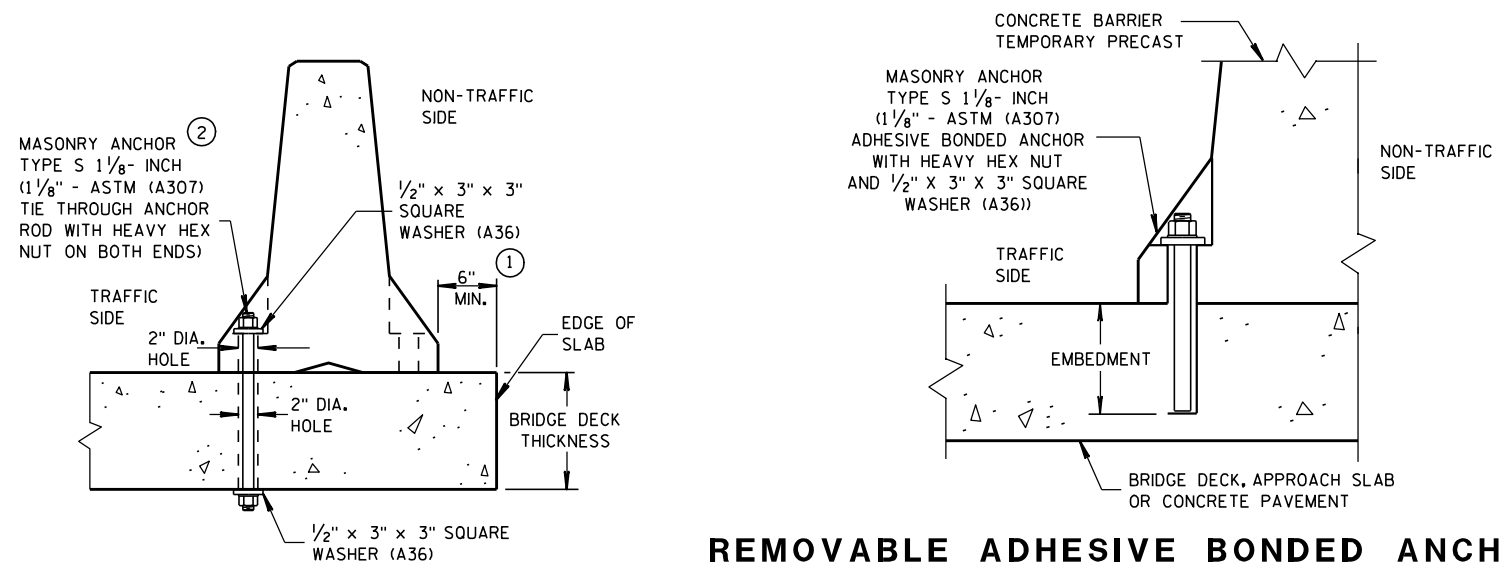
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

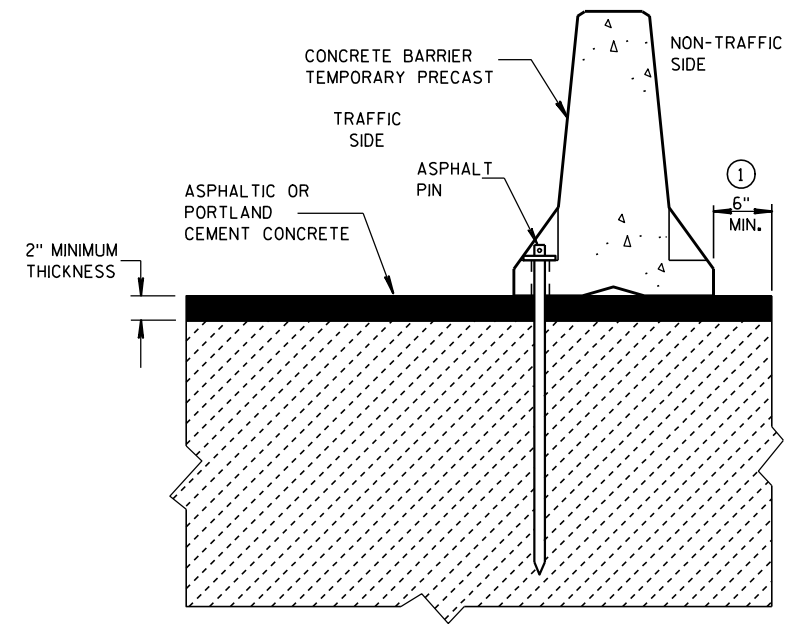


THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

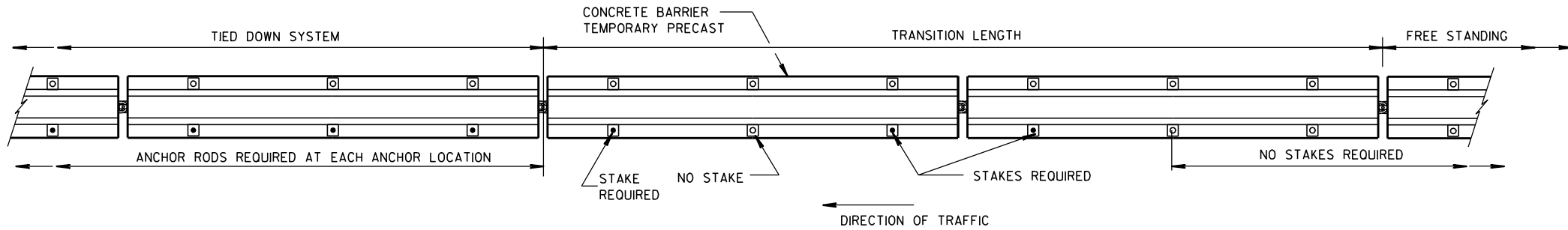
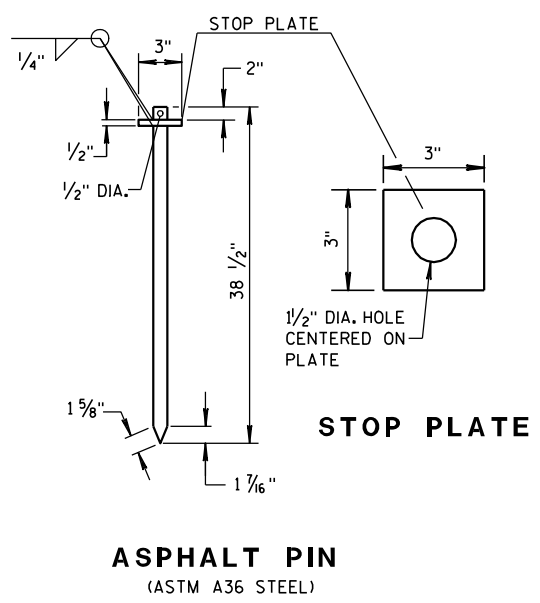
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

- 1 CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

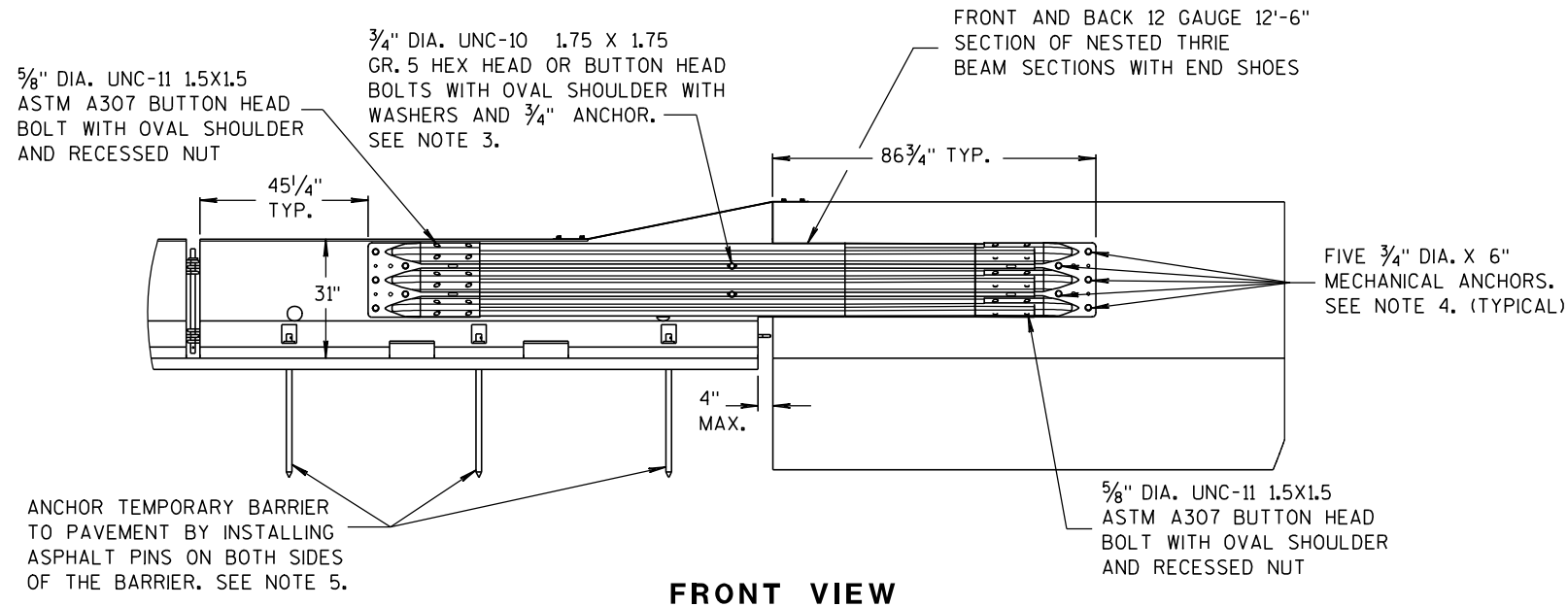
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.
- 2 ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1 1/8-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

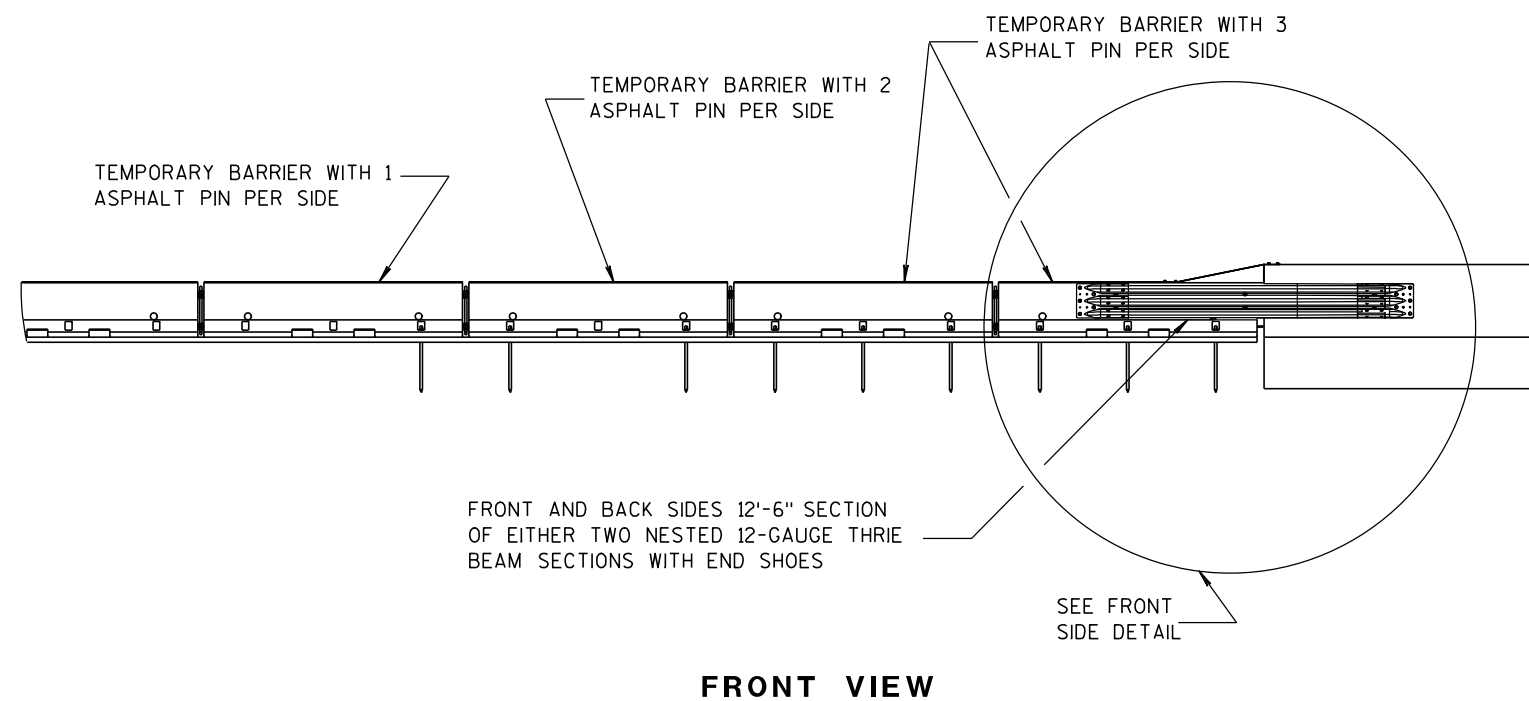
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

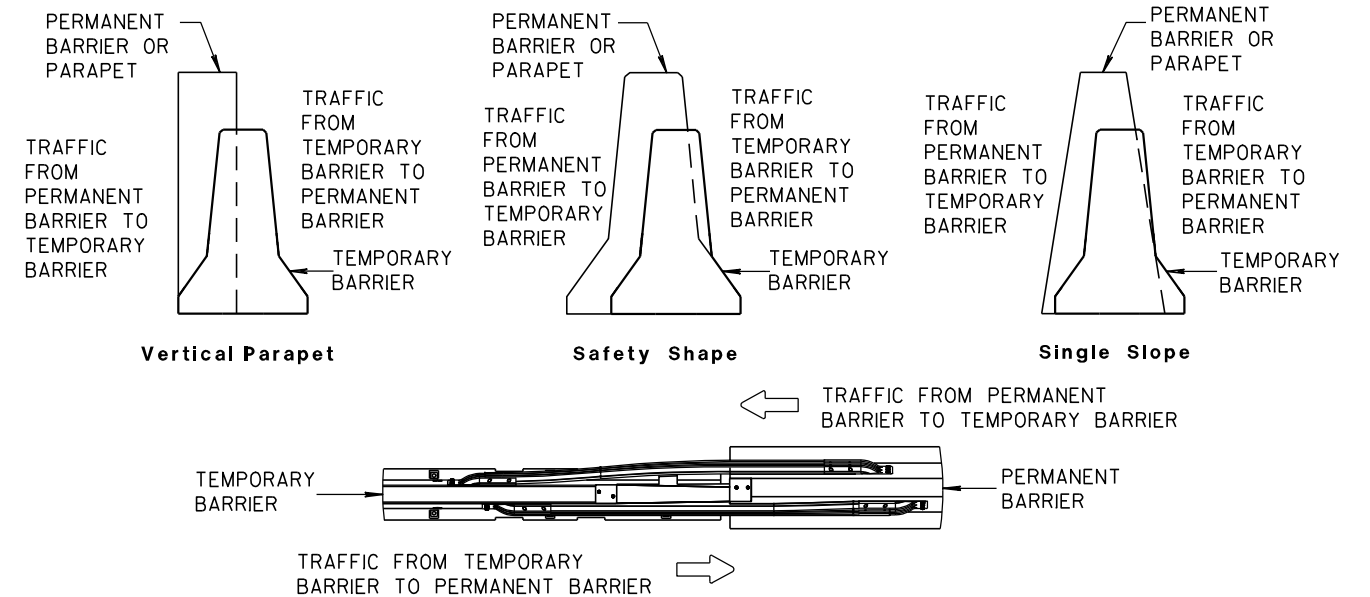


NOTES

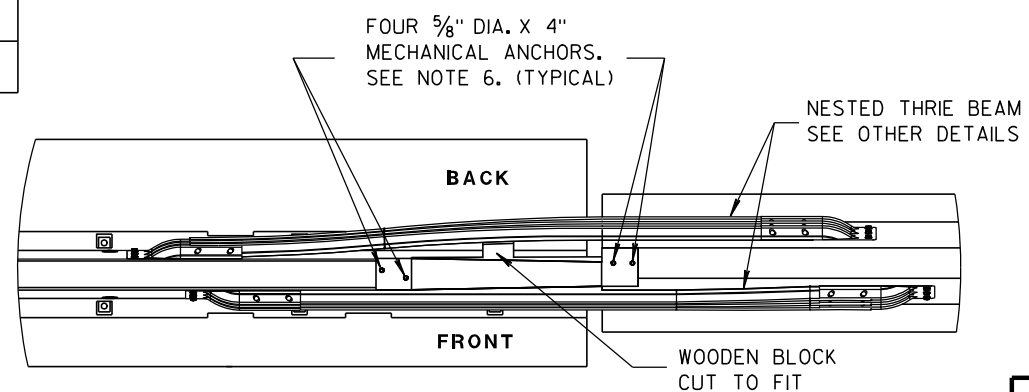
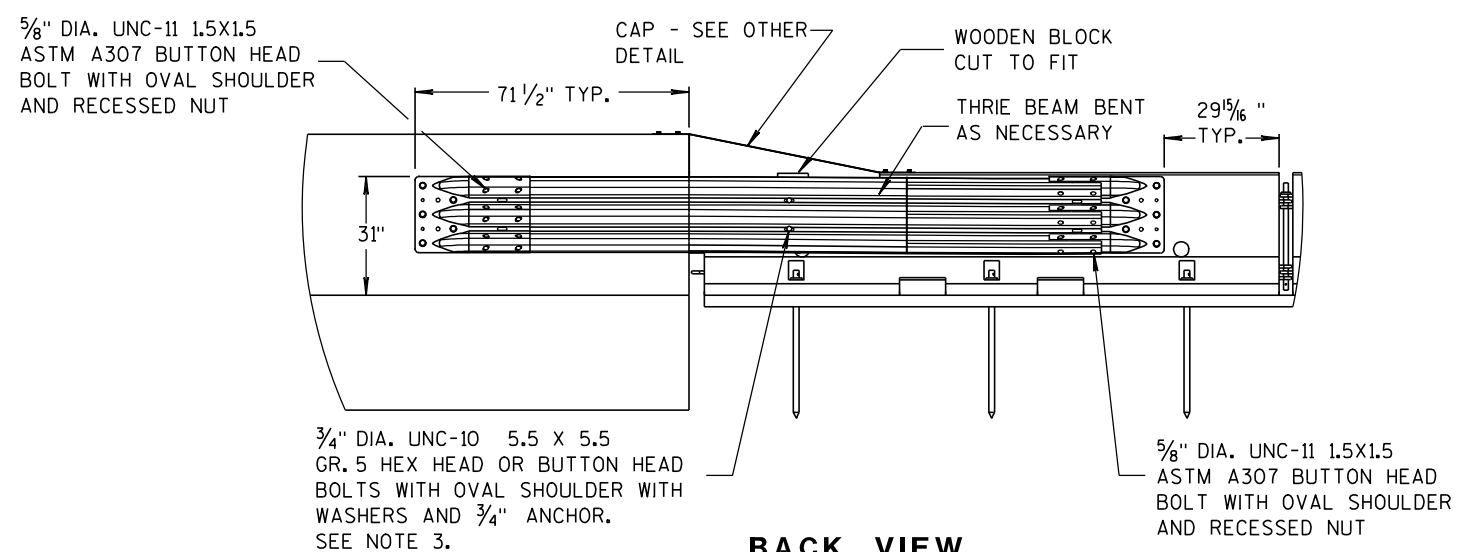
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

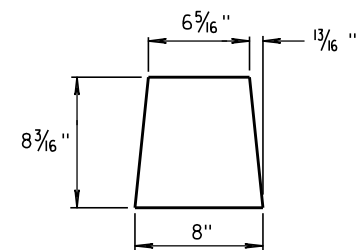
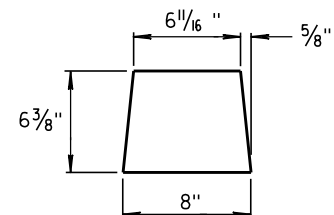
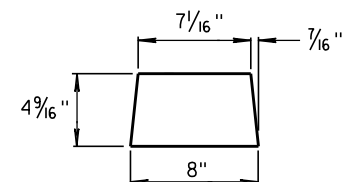
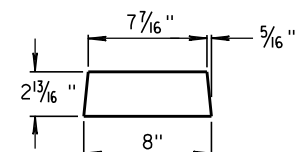
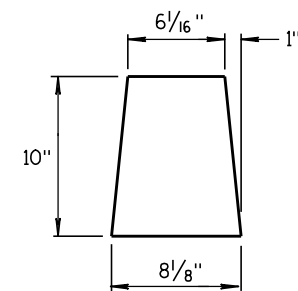
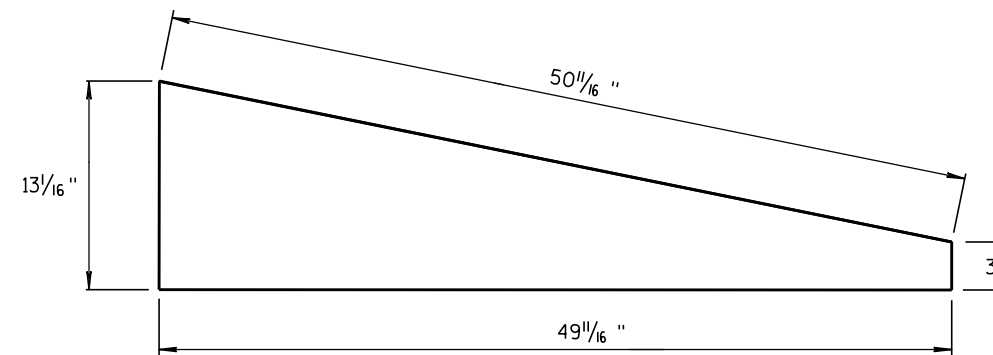
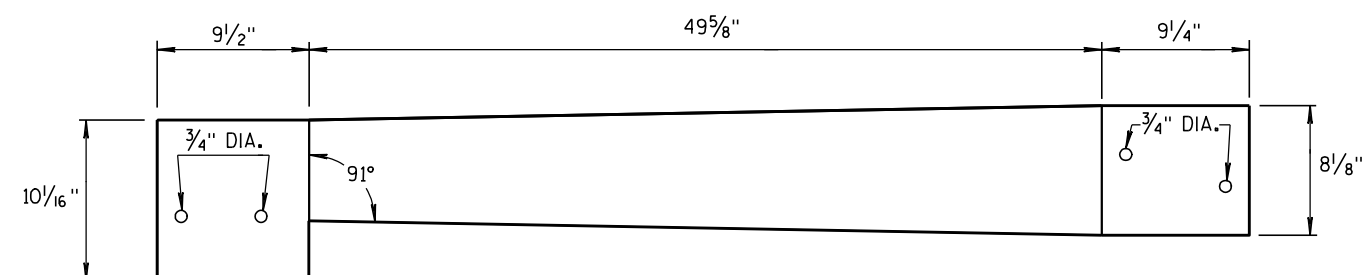
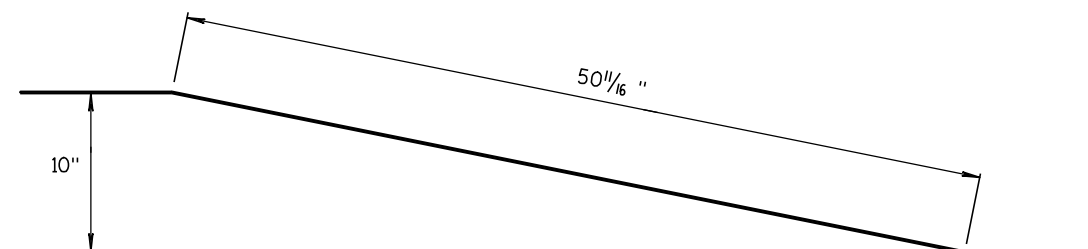


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



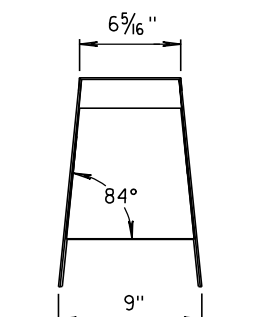
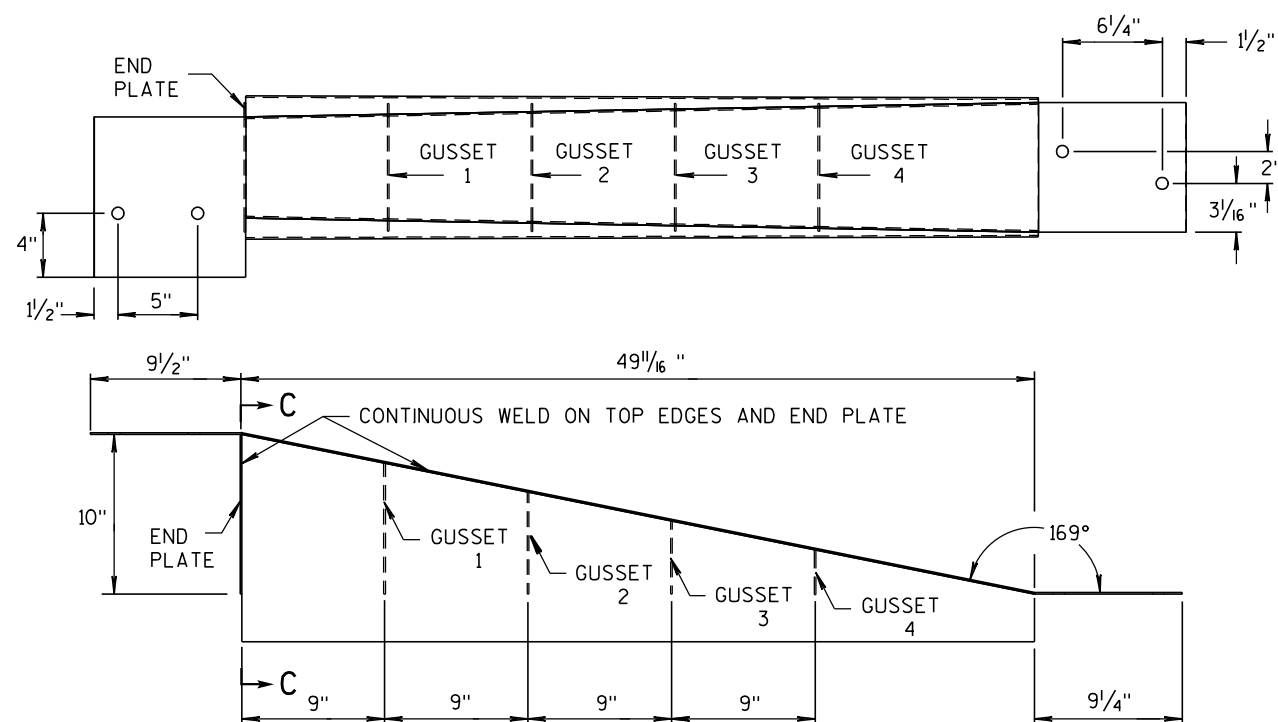
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**GUSSET 1****GUSSET 2****GUSSET 3****GUSSET 4****GUSSETS****END PLATE****SIDE PLATE****TOP PLATE**

**SIDE, TOP AND END PLATES FOR CAP
FROM TEMPORARY CONCRETE BARRIER
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

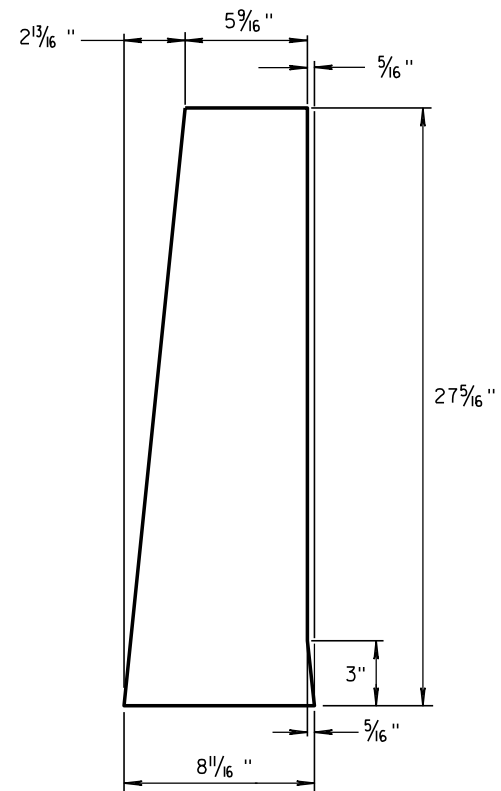
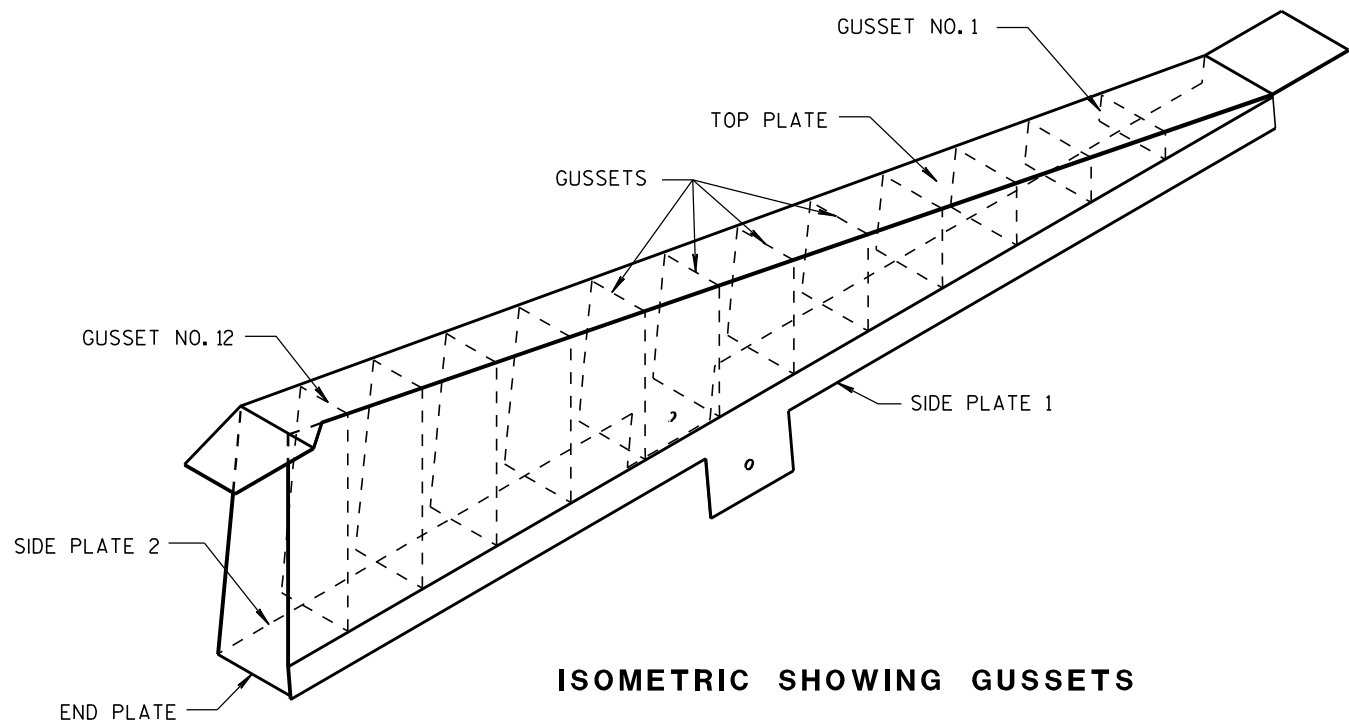
**SECTION C-C****NOTES**

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

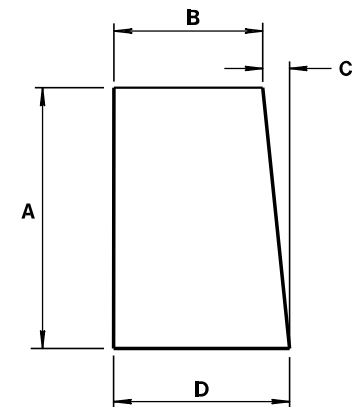
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

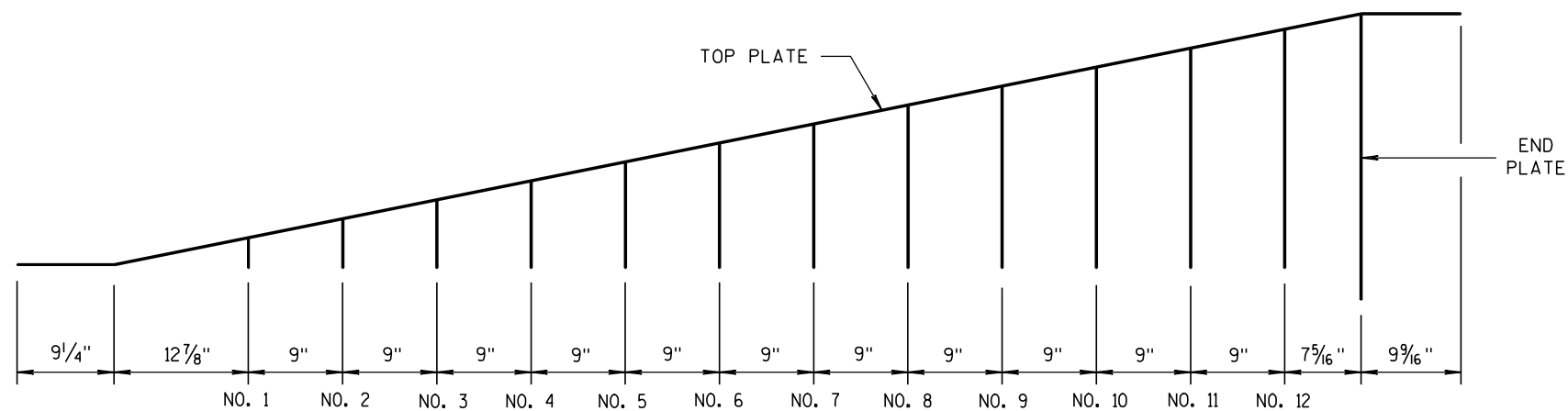


ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8 "	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

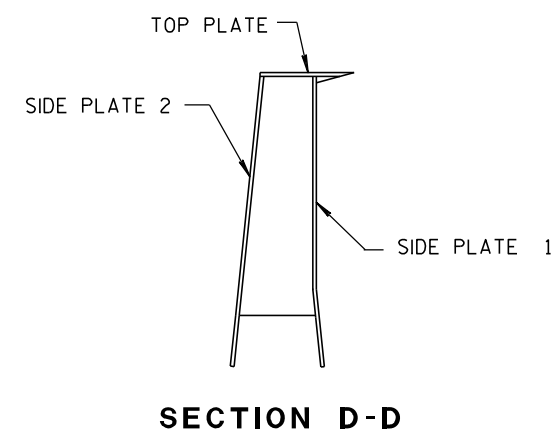
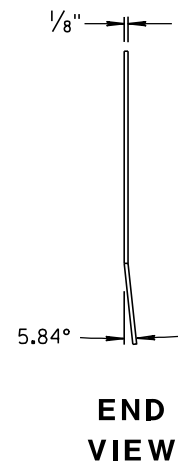
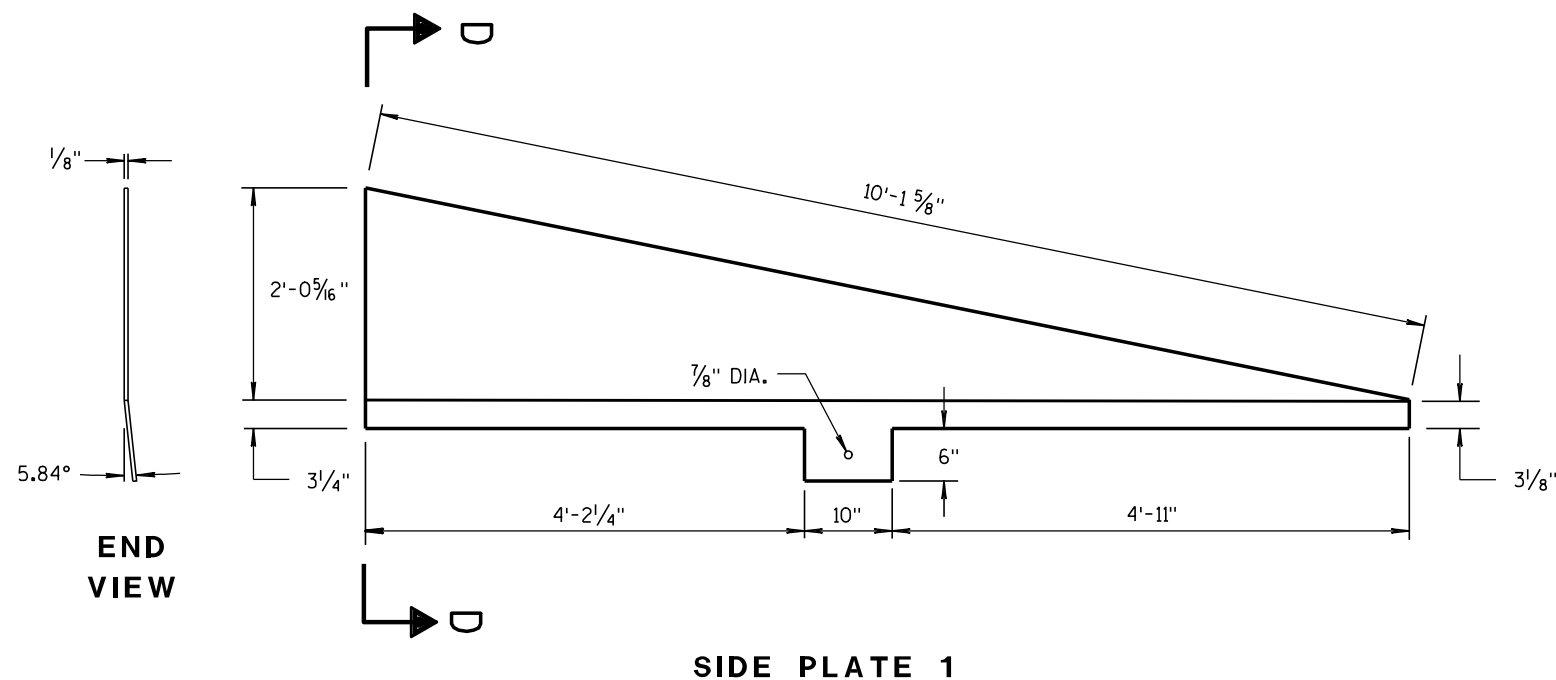
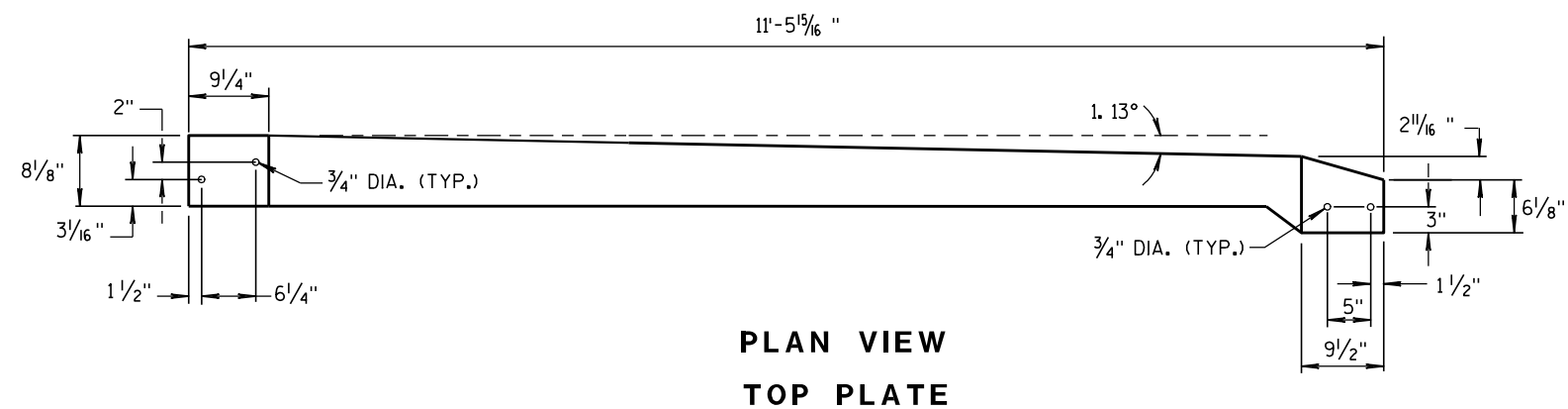
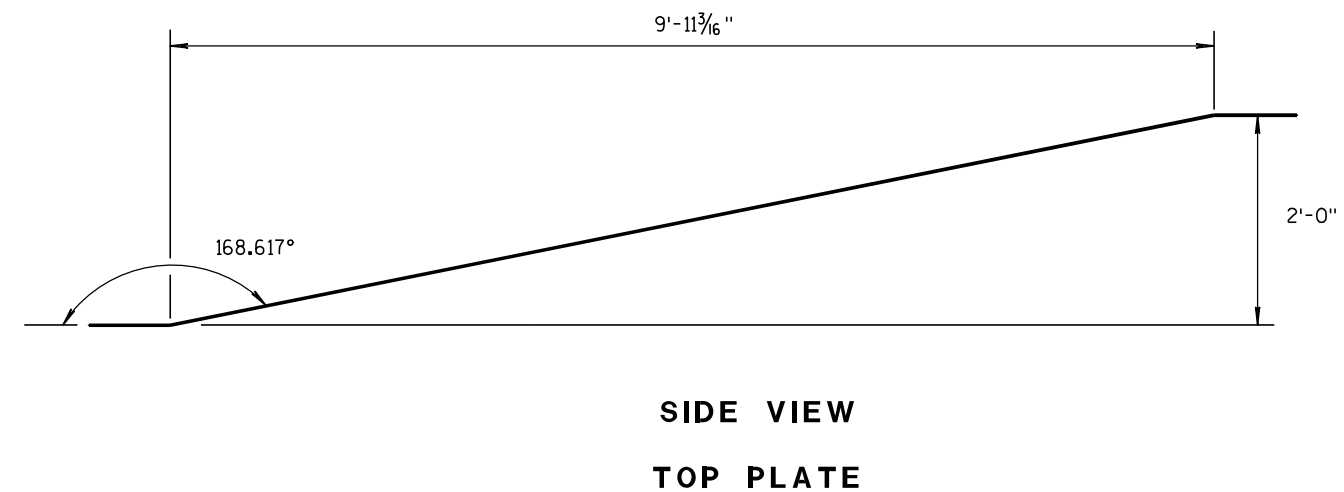
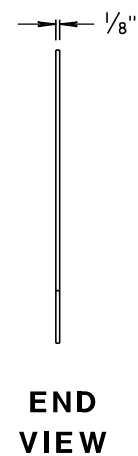
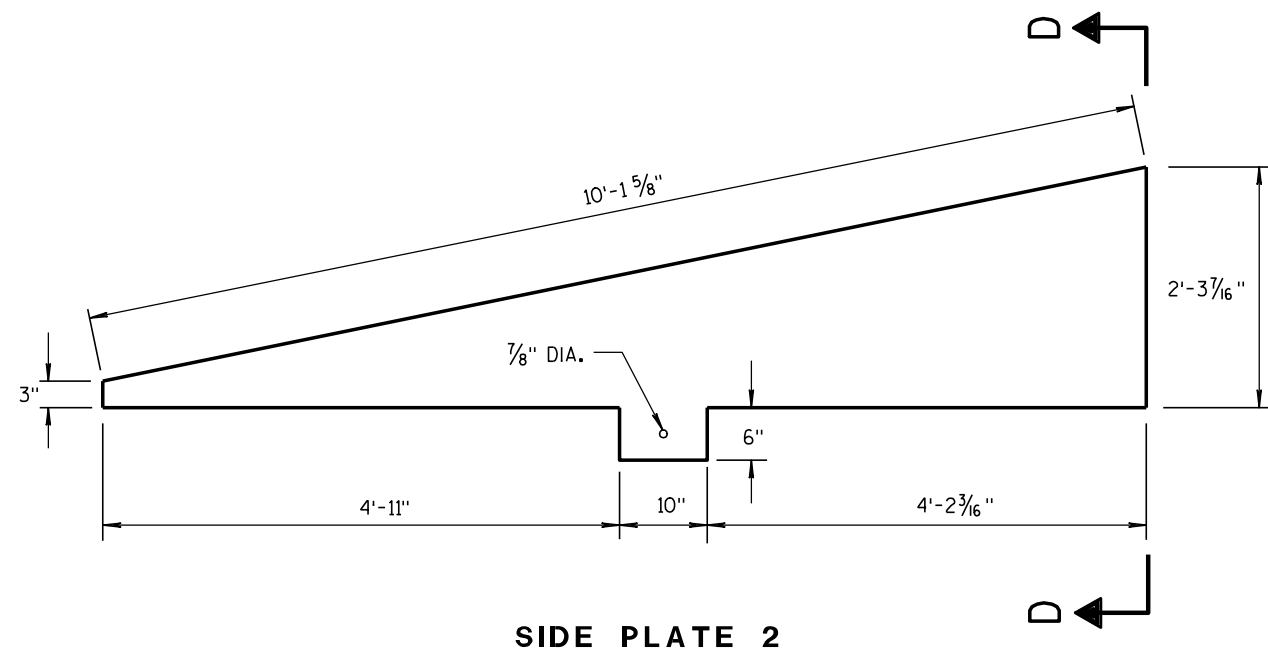
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

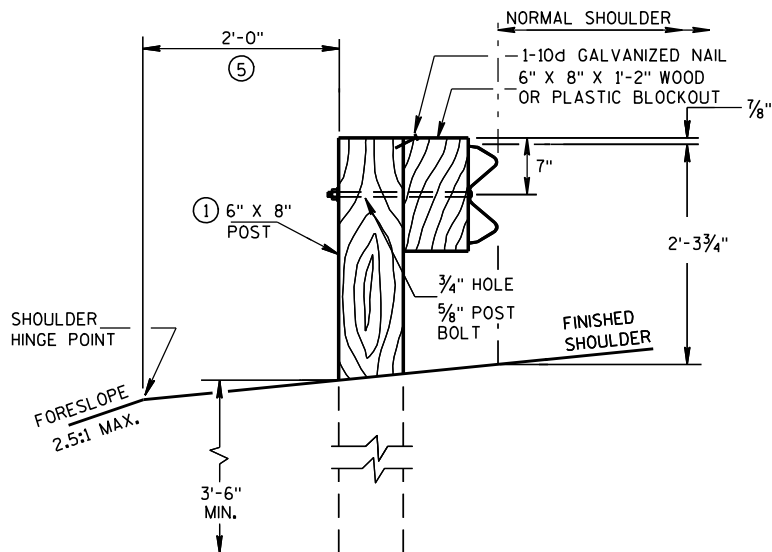
APPROVED
8/31/2012 DATE /S/ Jerry H. 7-13h
FHWA ROADWAY STANDARD 149 ENT
ENGINEER

GENERAL NOTES

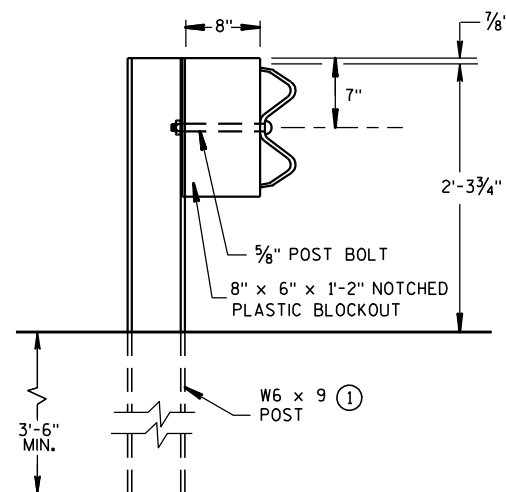
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.
DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

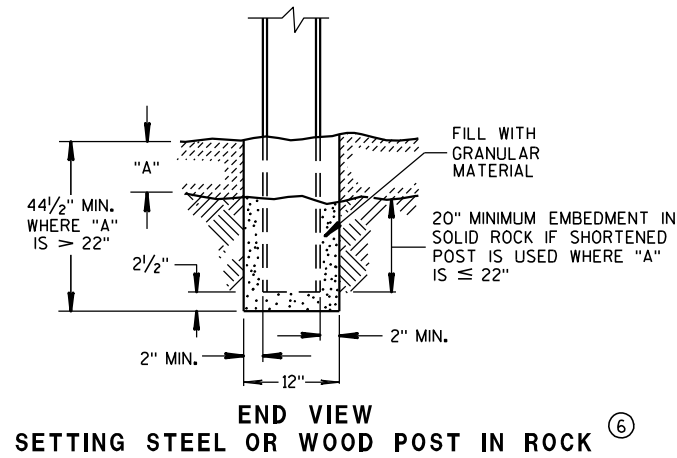
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



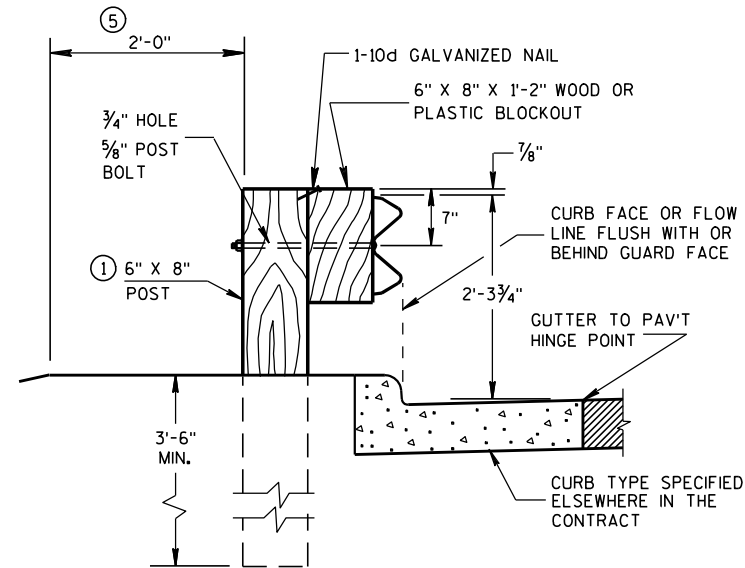
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



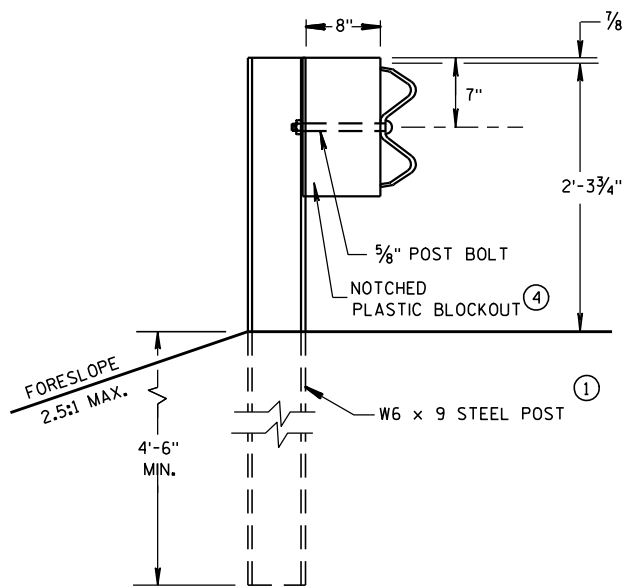
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



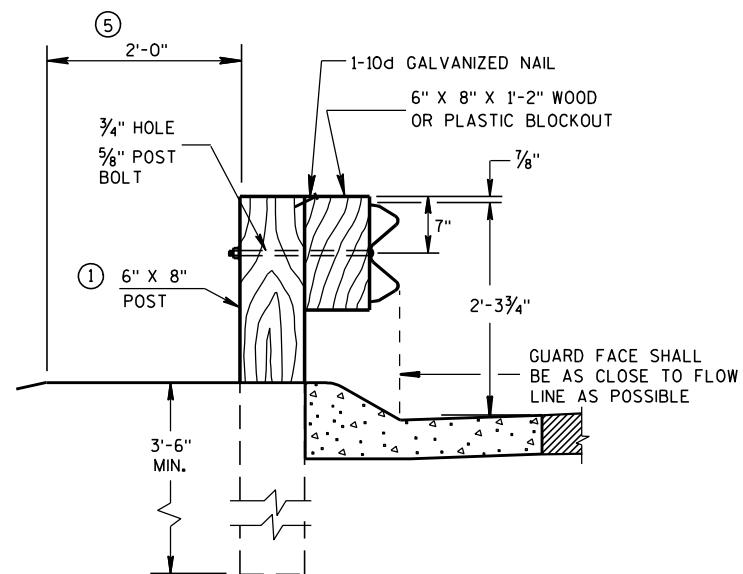
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



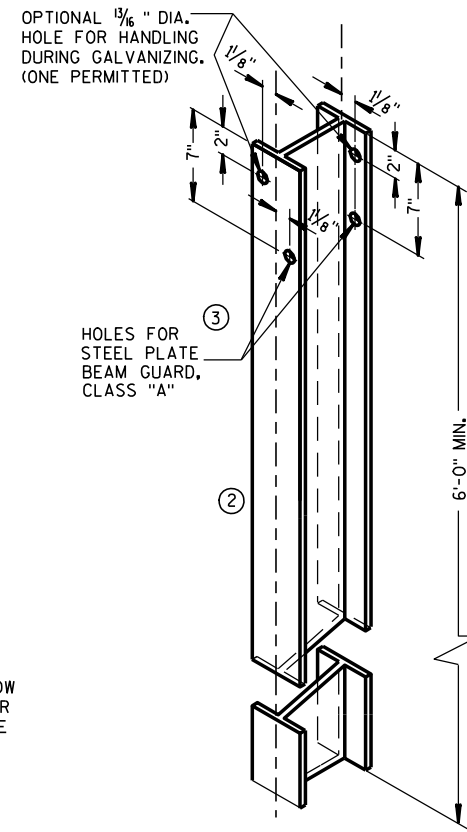
END VIEW
LOCATED ALONG A CURBED ROADWAY



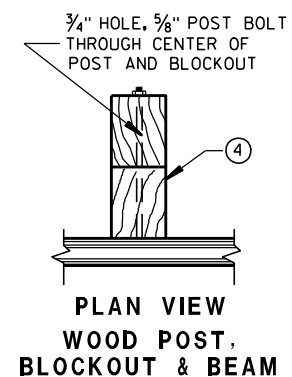
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



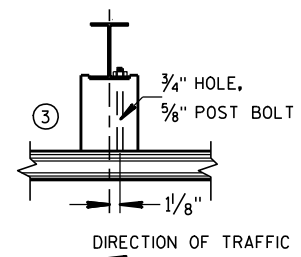
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



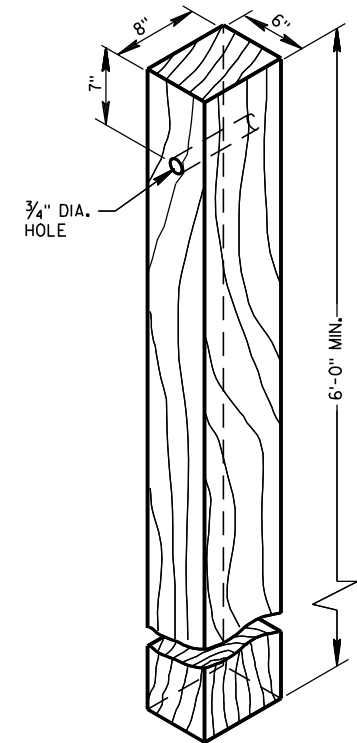
STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①
ALL HOLES 1/8" DIAMETER EXCEPT AS NOTED



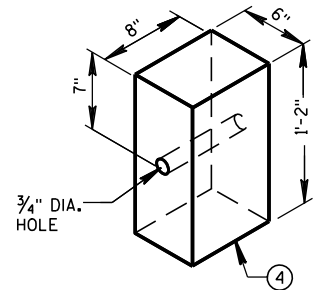
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



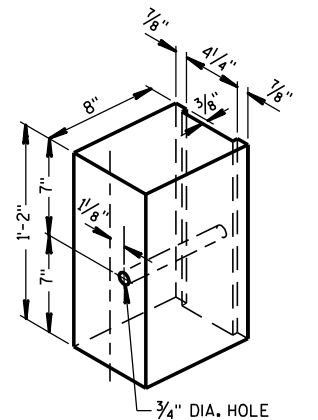
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



WOOD POST
(6"X8") NOMINAL



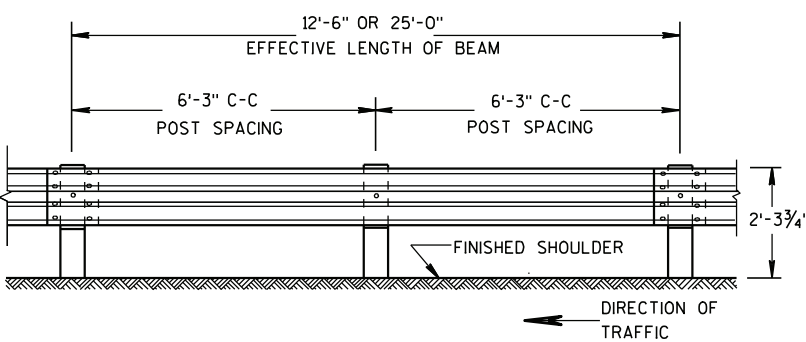
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS ①

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

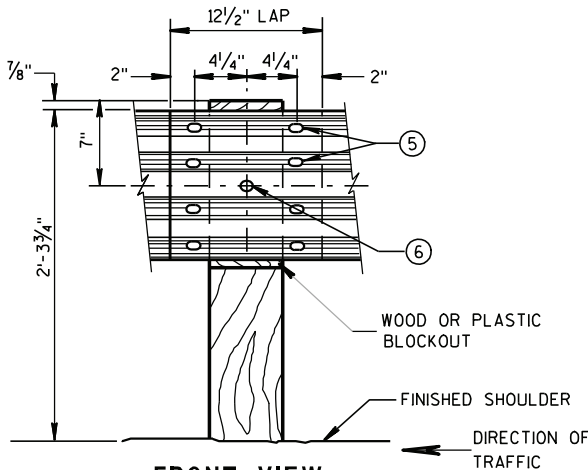
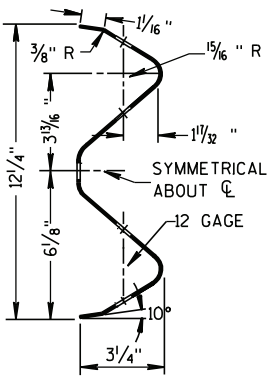
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
150



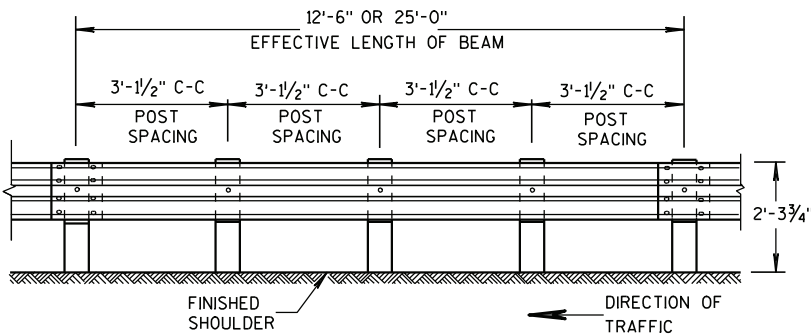
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

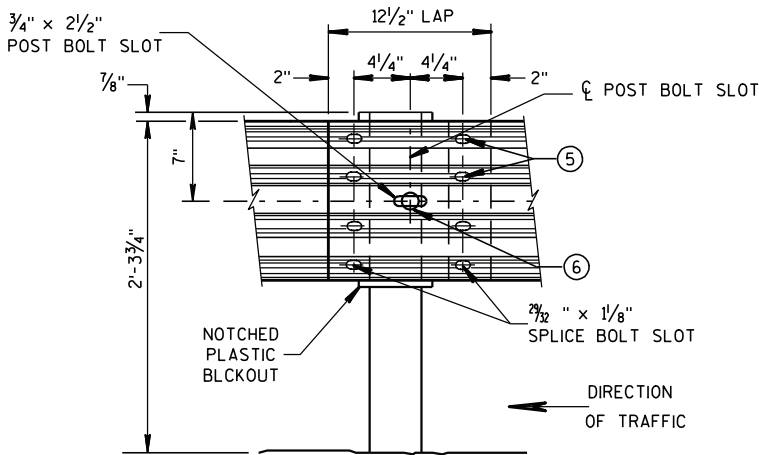


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)

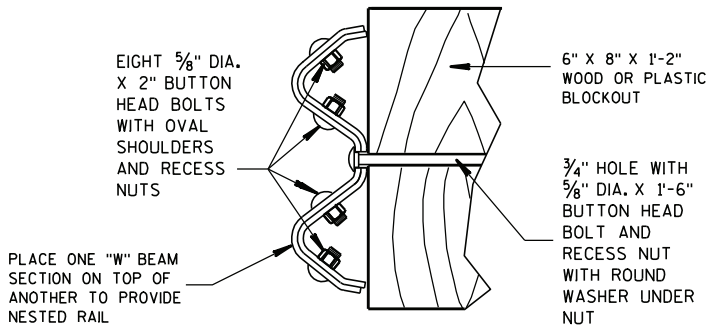


FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

GENERAL NOTES

- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑤ 8 - $\frac{5}{8}$ " ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑥ $\frac{5}{8}$ " ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.

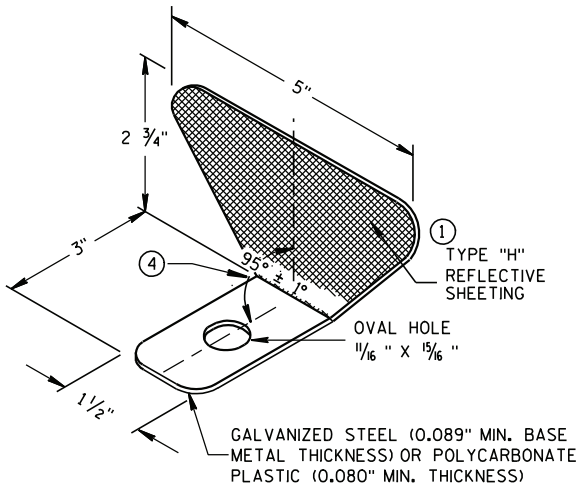
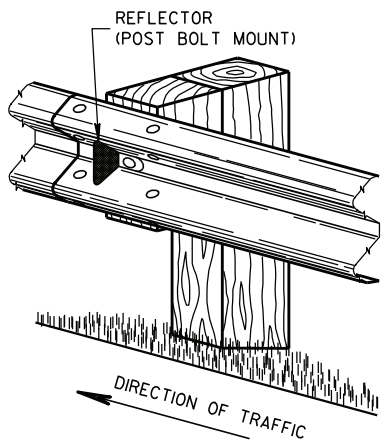


NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING^②

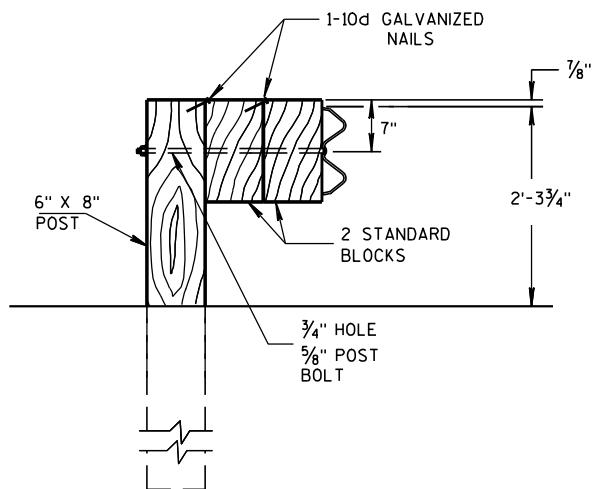
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

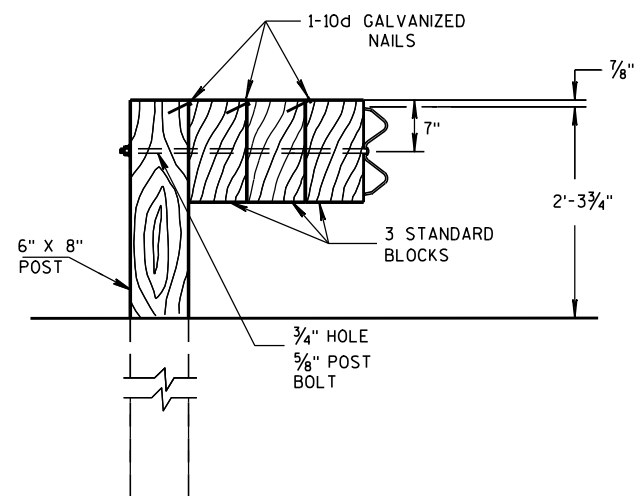
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

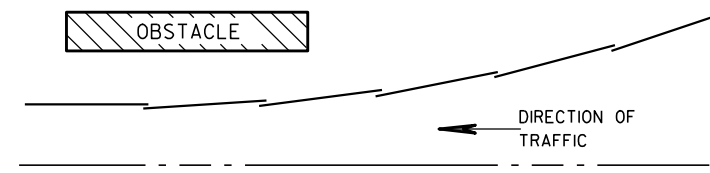


DETAIL FOR TRIPLE BLOCKS

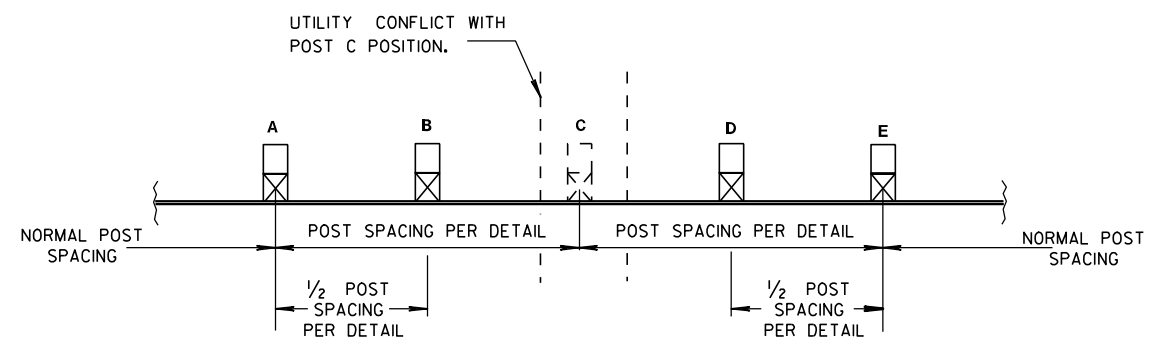
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND
SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION
DISTANCE OF THE BARRIER.



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS 152

ENGINEER

ENT

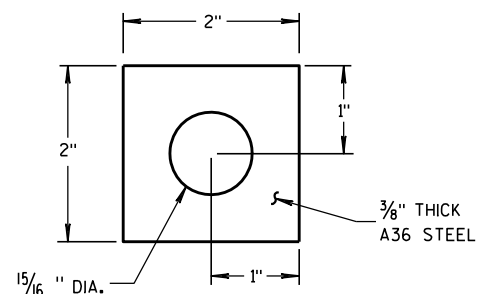
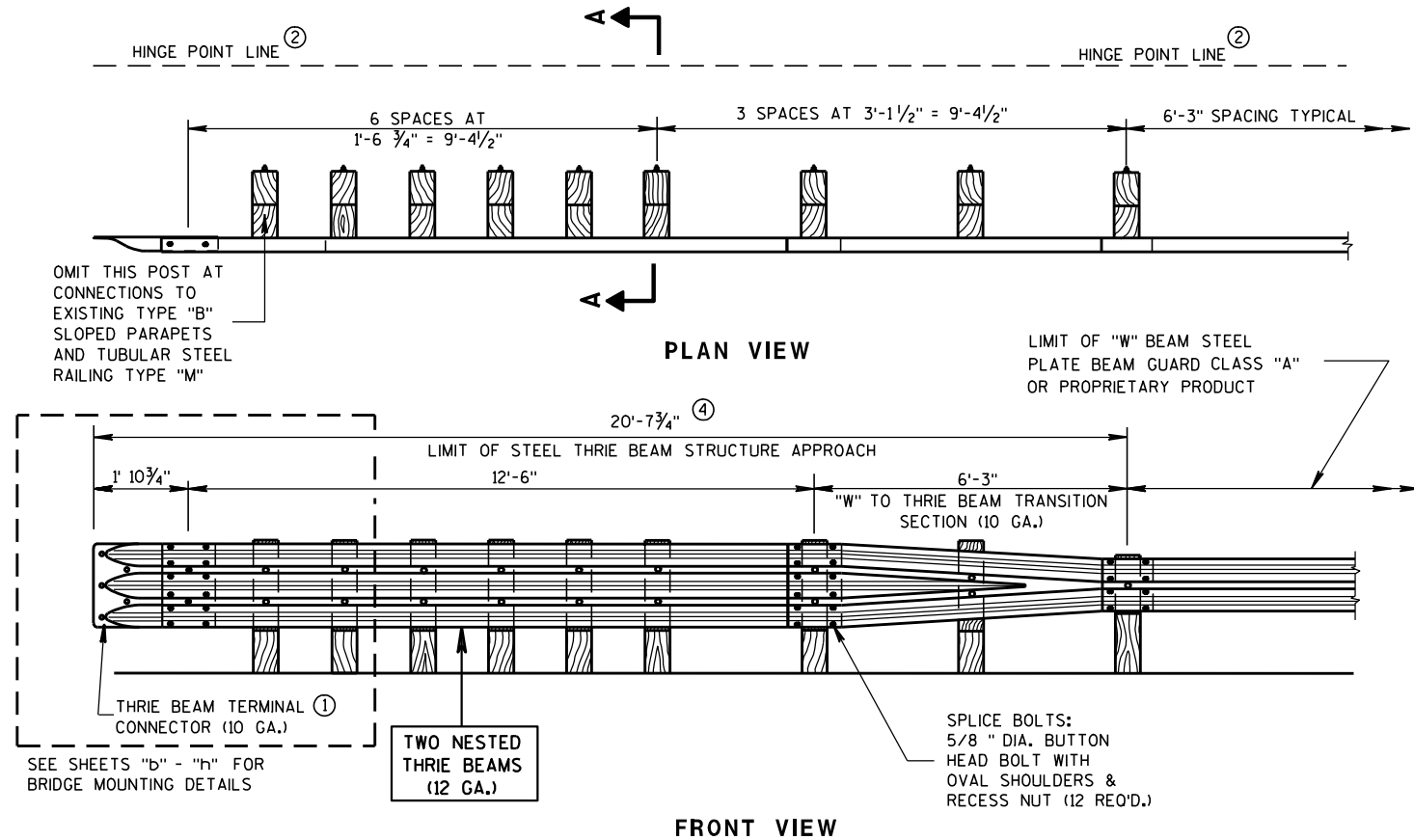


PLATE WASHER DETAIL

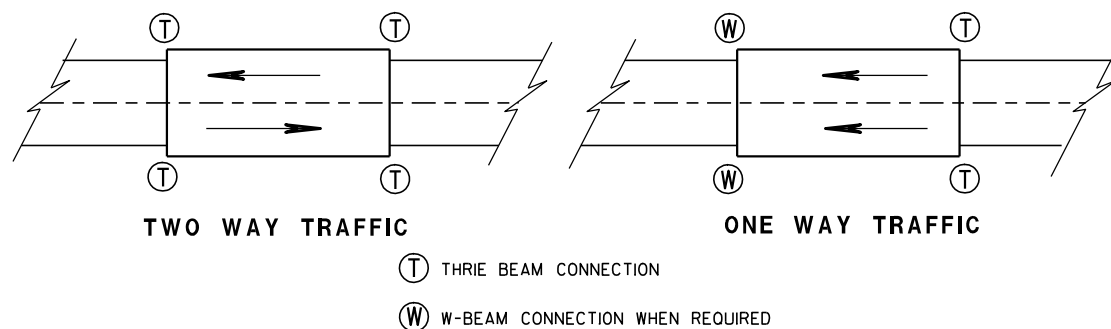
GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

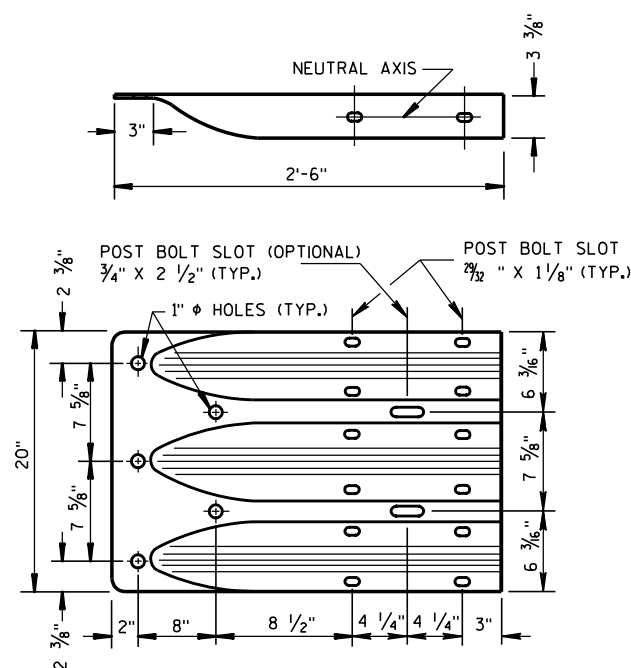
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

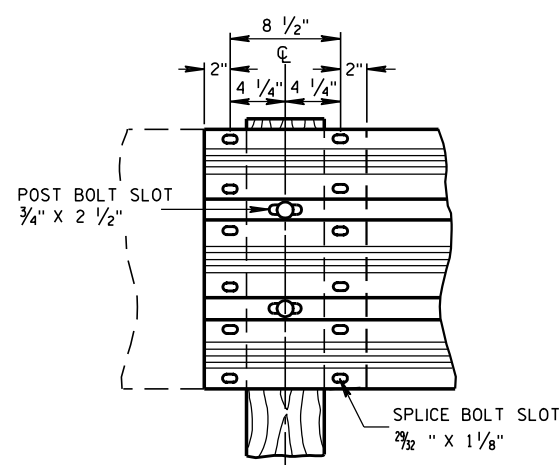
- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.
- ③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.
- ④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



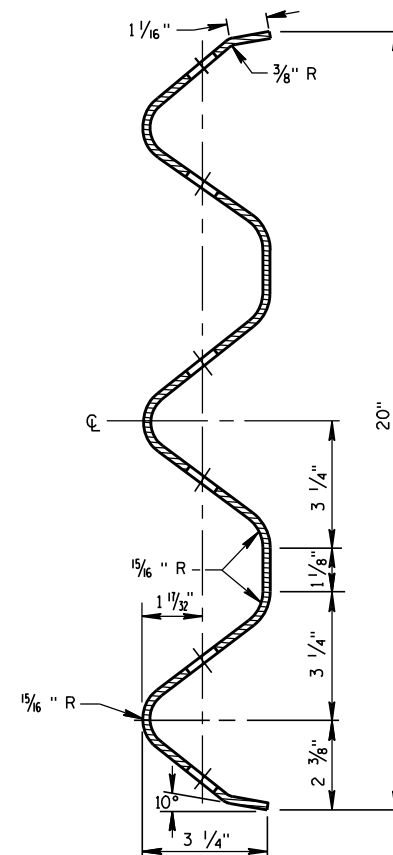
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



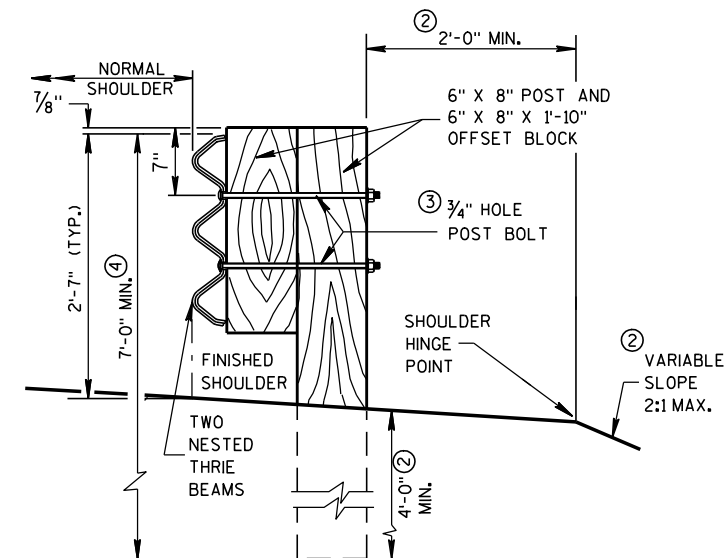
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

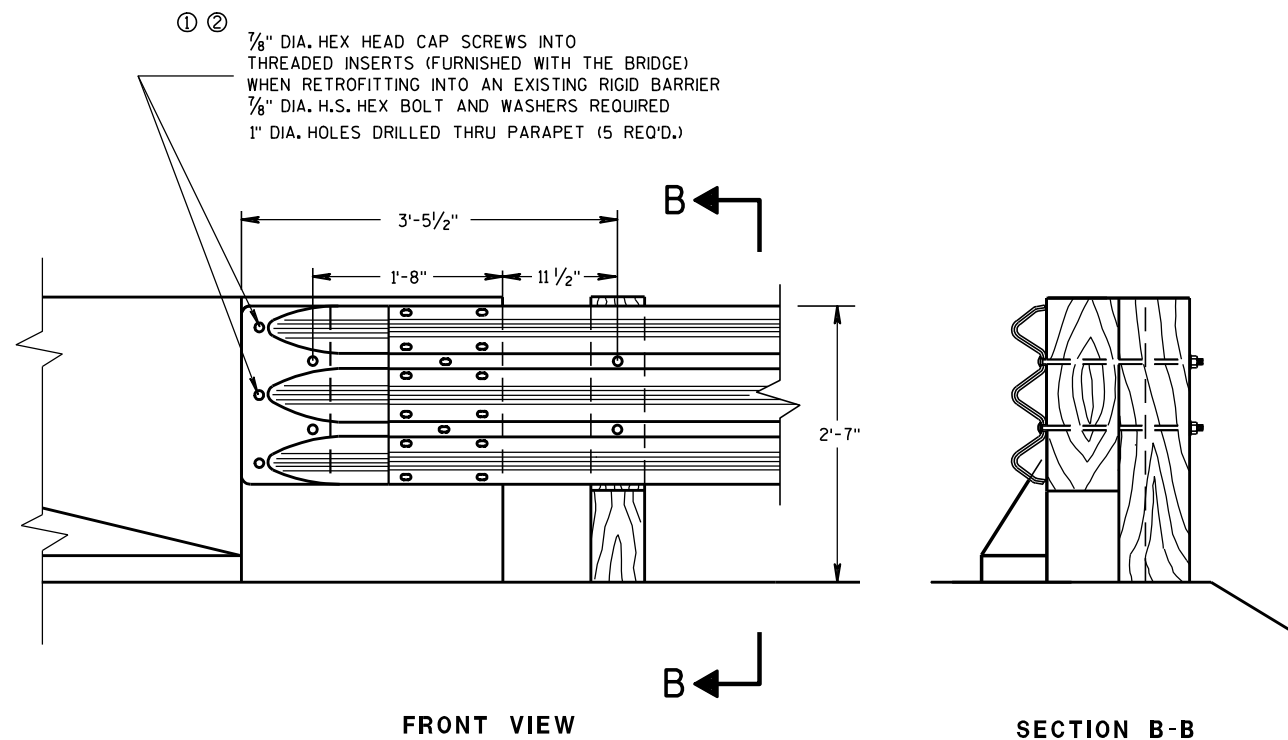
DATE

/s/ Jerry H. Zoon

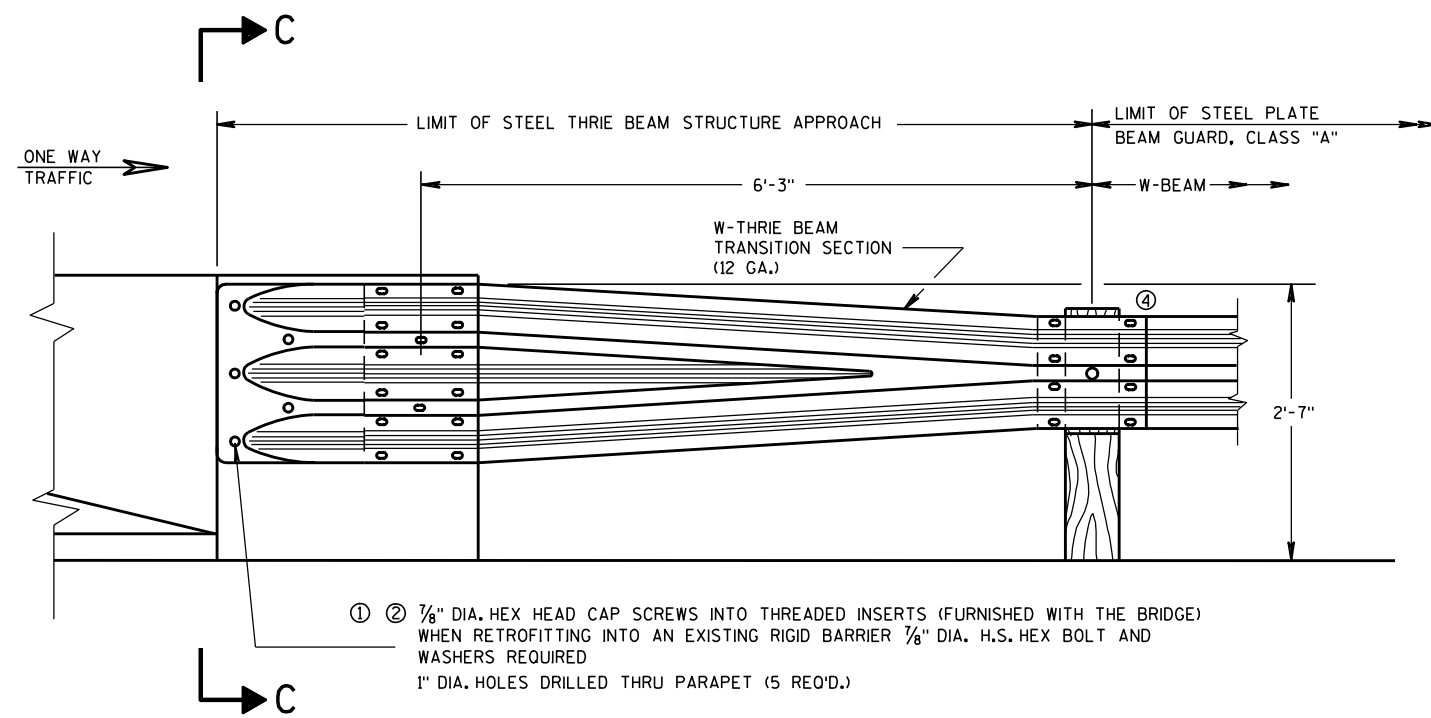
ROADWAY STANDARDS 153

ENGINEER

FHWA



THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS



W BEAM TRANSITION AND CONNECTION TO
BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

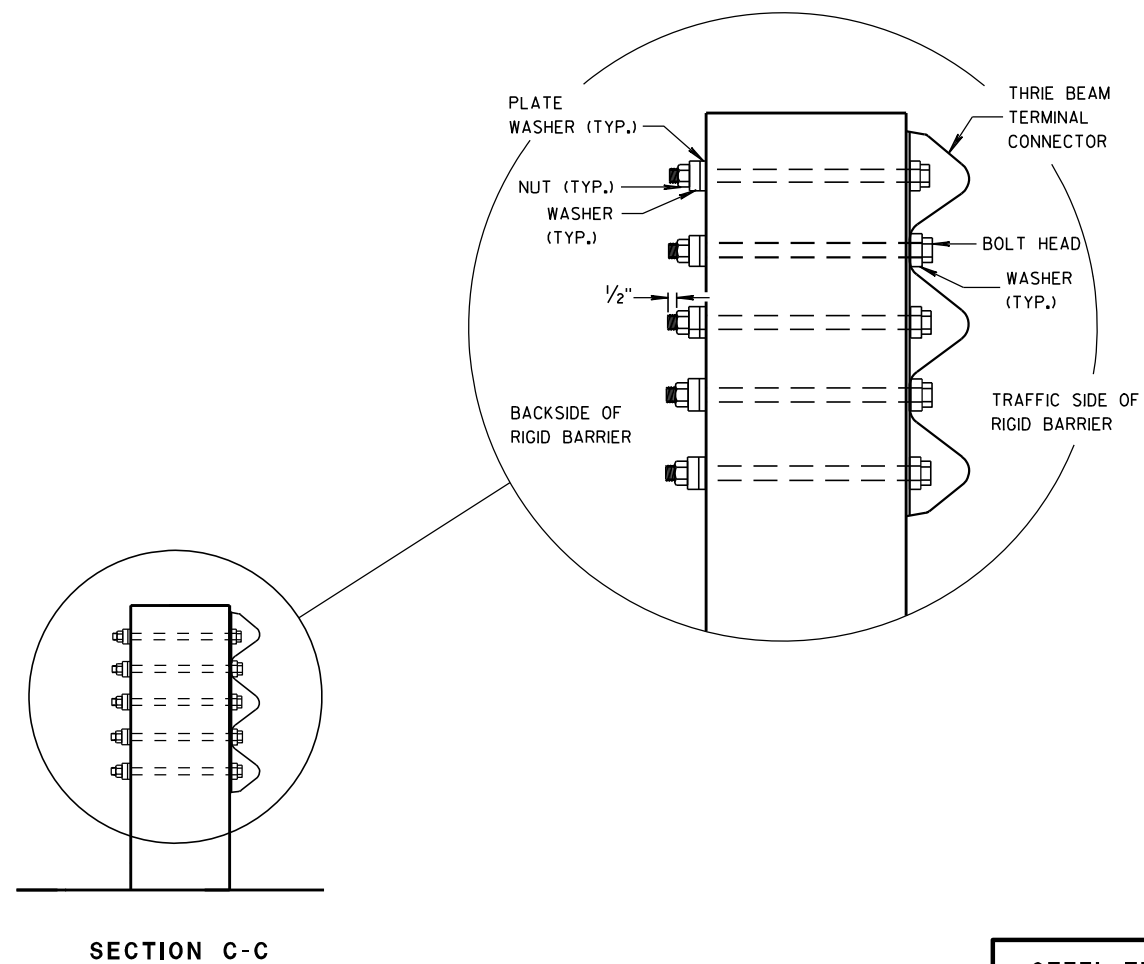
GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

FHWA

/S/ Jerry H. Zapp
ROADWAY STANDARDS
ENGINEER

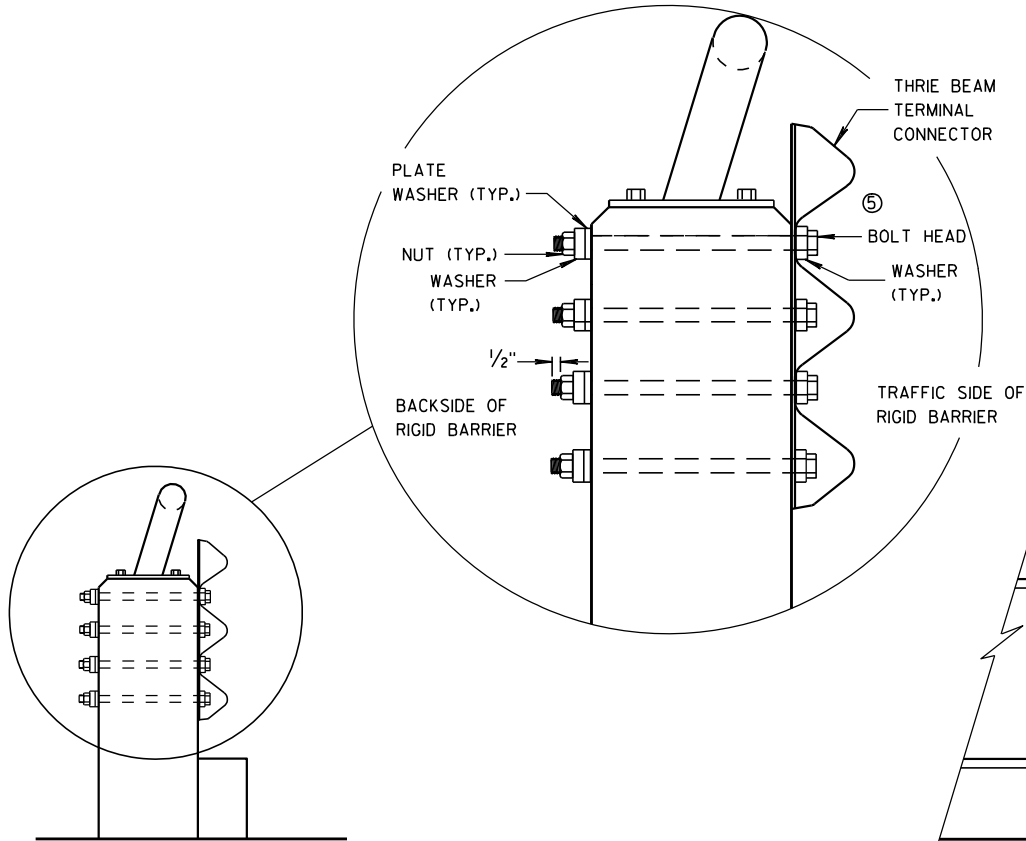
ENT

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

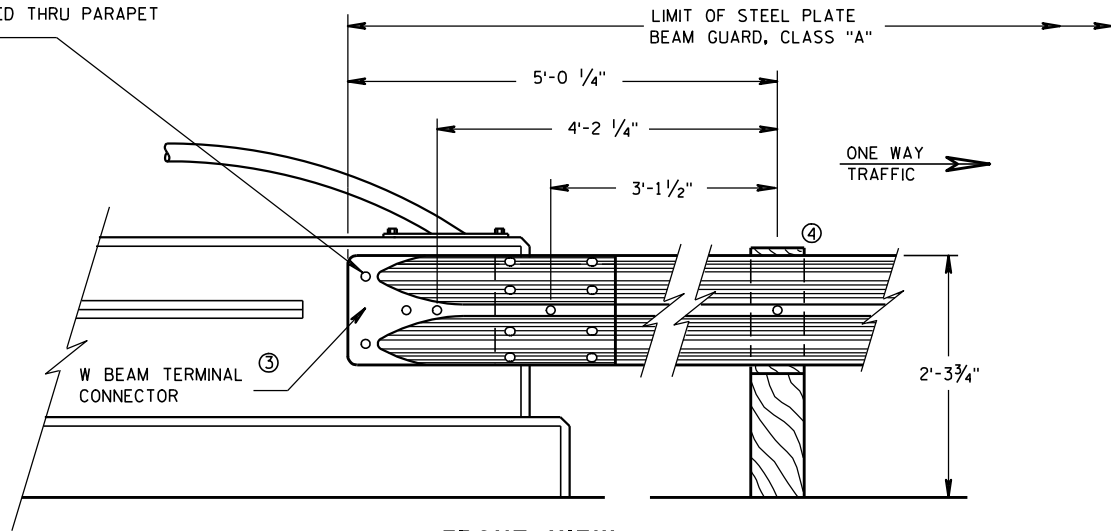
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X $\frac{5}{8}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 $\frac{1}{2}$ ".
- ④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
- ⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.
- DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



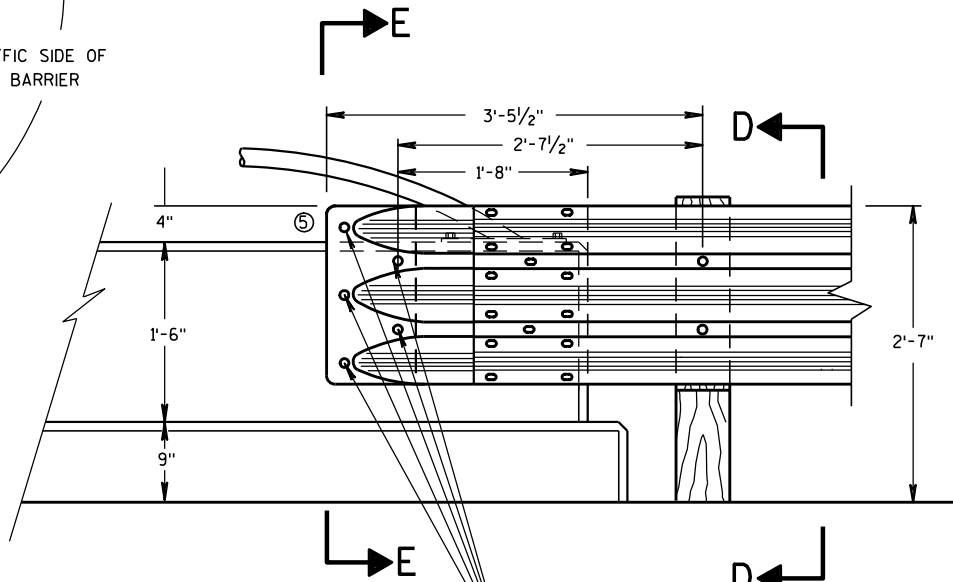
SECTION E-E

- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
- 1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

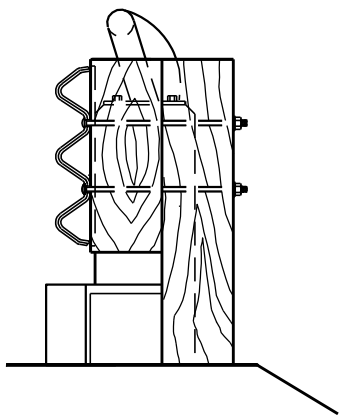
W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
- 1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



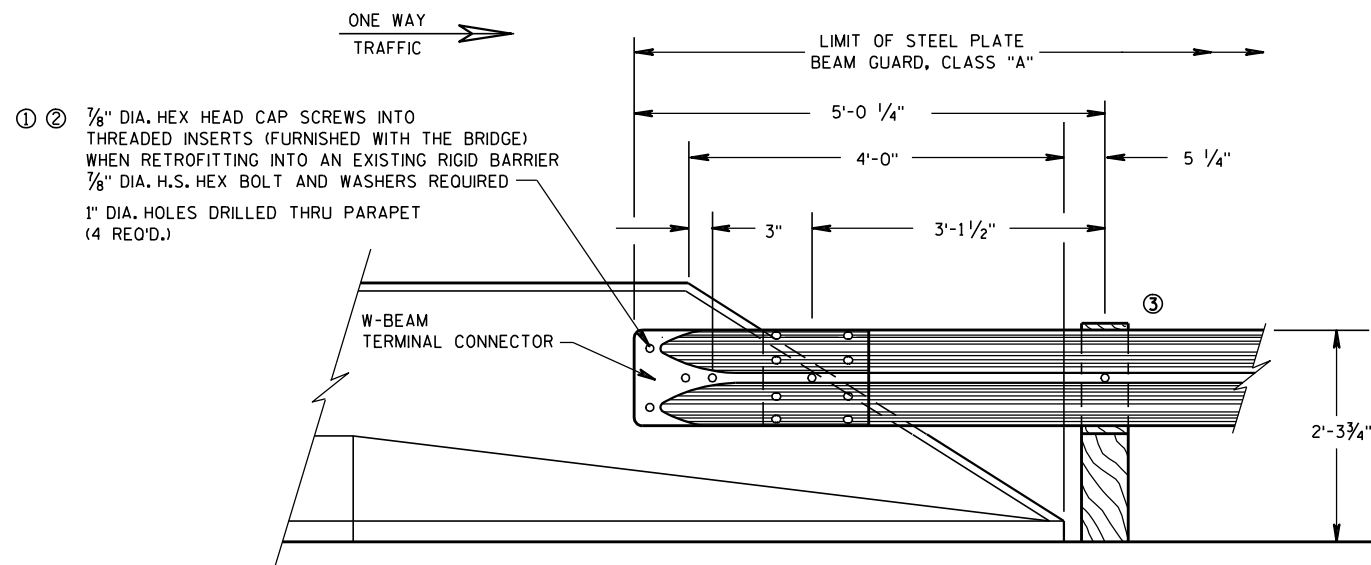
SECTION D-D

STEEL THRIE BEAM STRUCTURE
APPROACH, CONNECTION TO
VERTICAL FACED PARAPETS

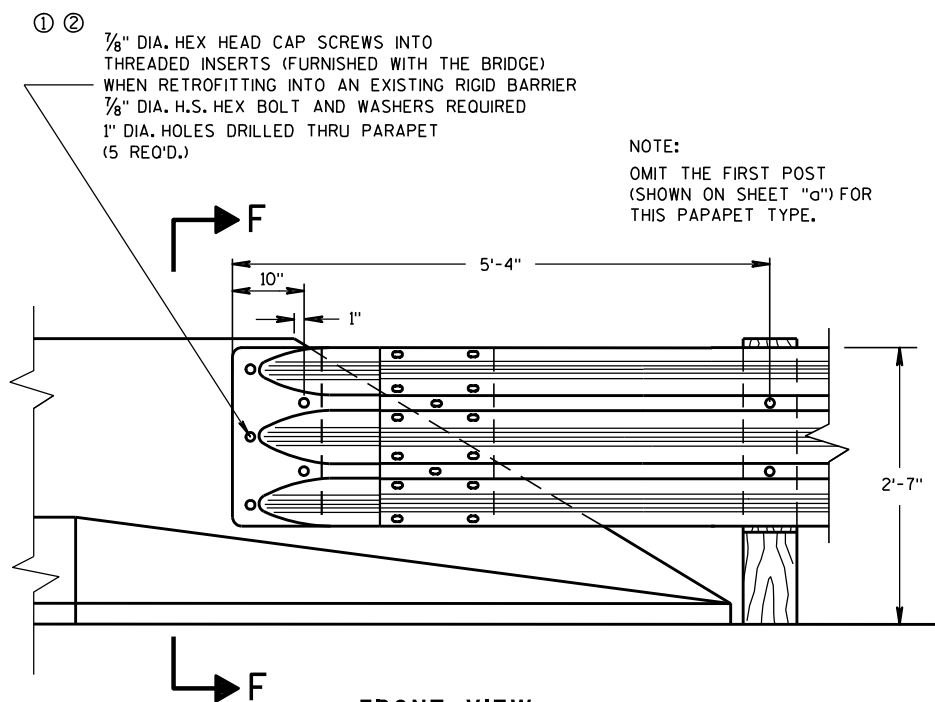
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H. Zoon
ROADWAY STANDARDS
ENGINEER
ENT

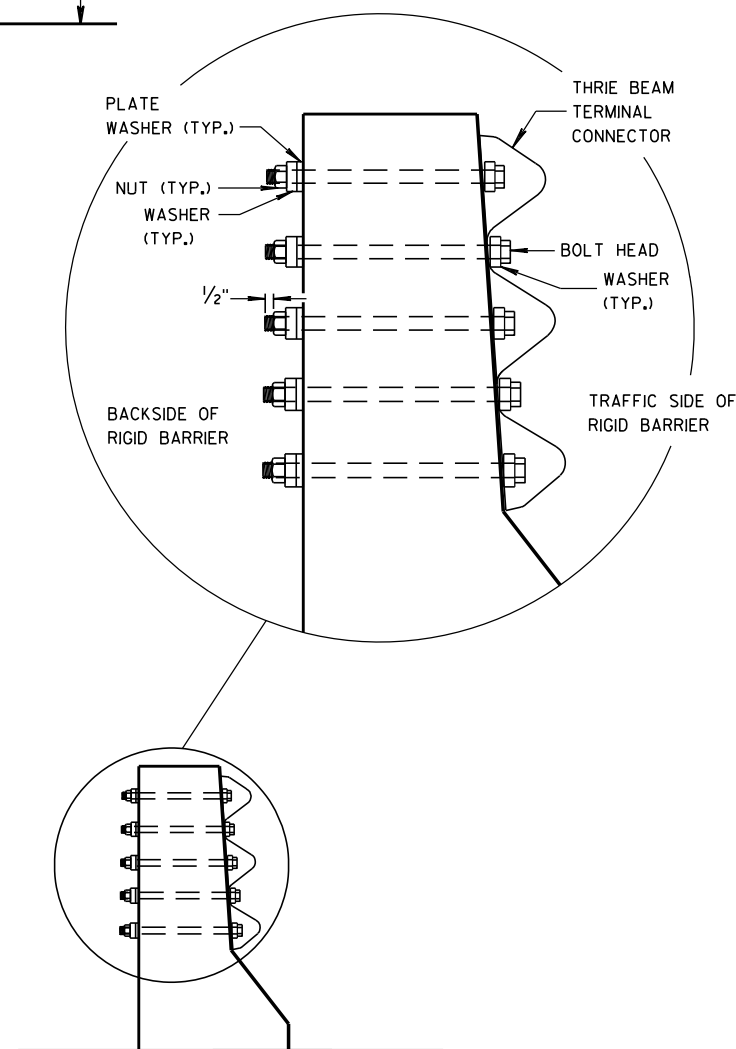
FHWA



FRONT VIEW
W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS
 (USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)



FRONT VIEW
THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS



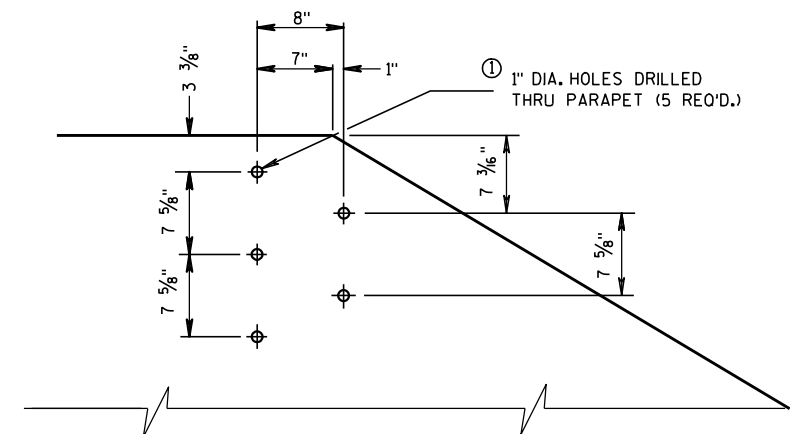
SECTION F-F

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
 DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

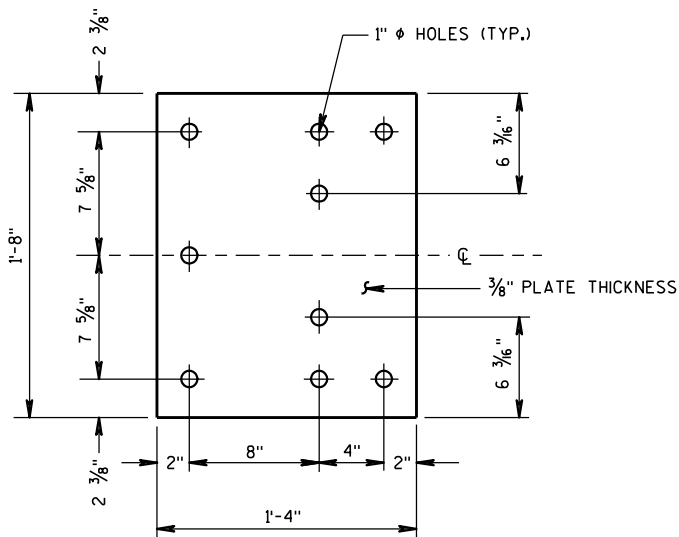


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION

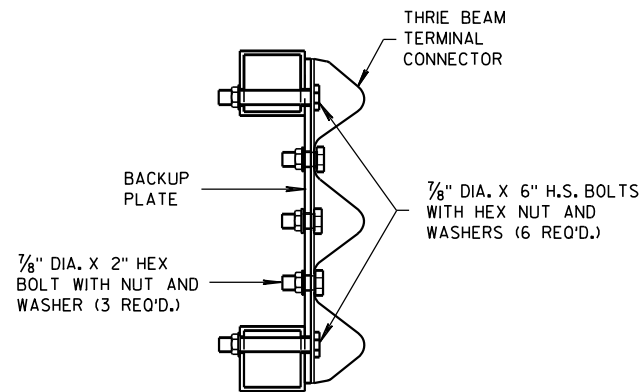
STEEL THRIE BEAM STRUCTURE APPROACH CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

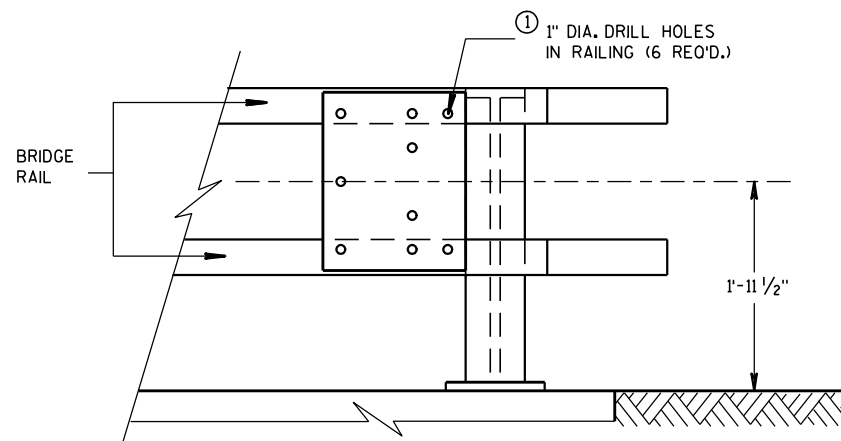
APPROVED
 8/31/2012 DATE /S/ Jerry H. Zoppo
 ROADWAY STANDARDS 156 INT
 FHWA ENGINEER



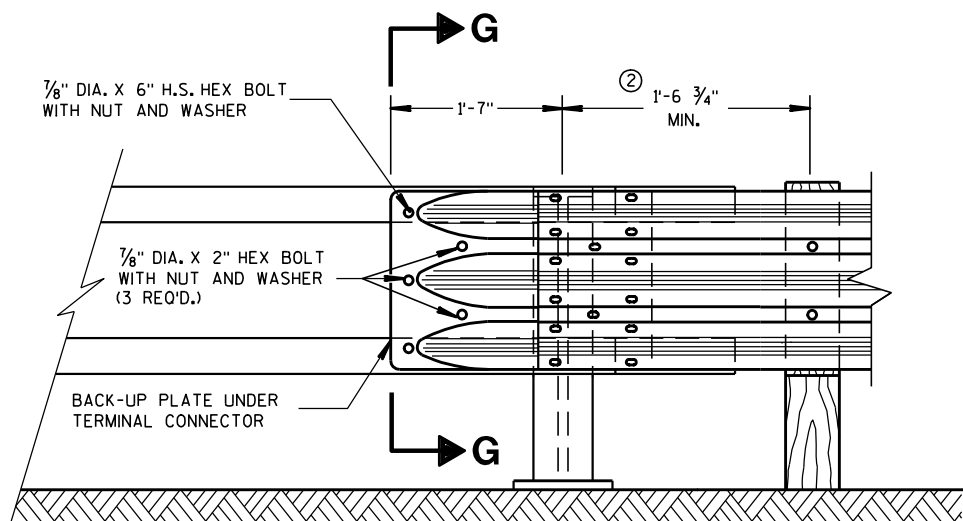
BACK-UP PLATE DETAIL



SECTION G-G

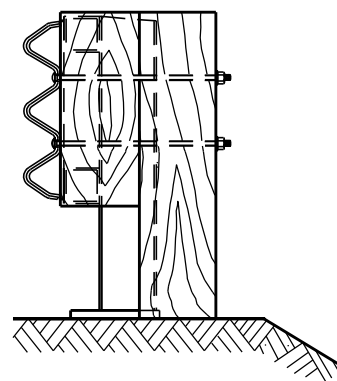


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

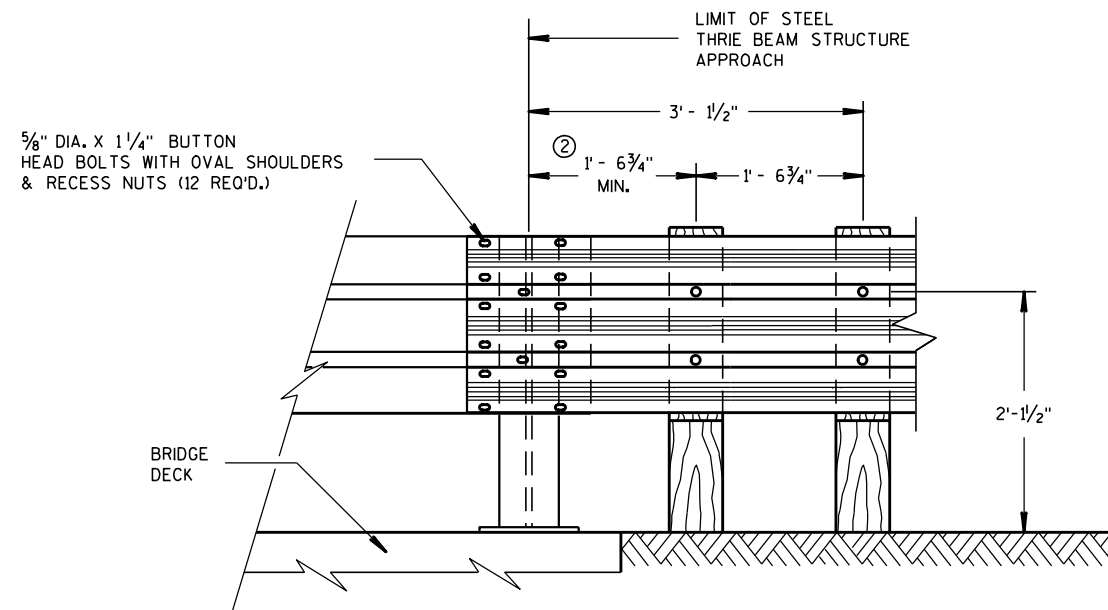


END VIEW

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

STEEL THRIE BEAM STRUCTURE
APPROACH, CONNECTION TO BRIDGE
RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

FHWA

/S/ Jerry H. Zapp
ROADWAY STANDARDS 157 ENT
ENGINEER

6

- S.D.D. 14 B 20-11f**

6

6

6

6

6

6

6

6

6

S.D.D. 14 B 20-11f

/S/ Jerry H. Zapp
 ROADWAY STANDARDS ENGINEER 158 ENT

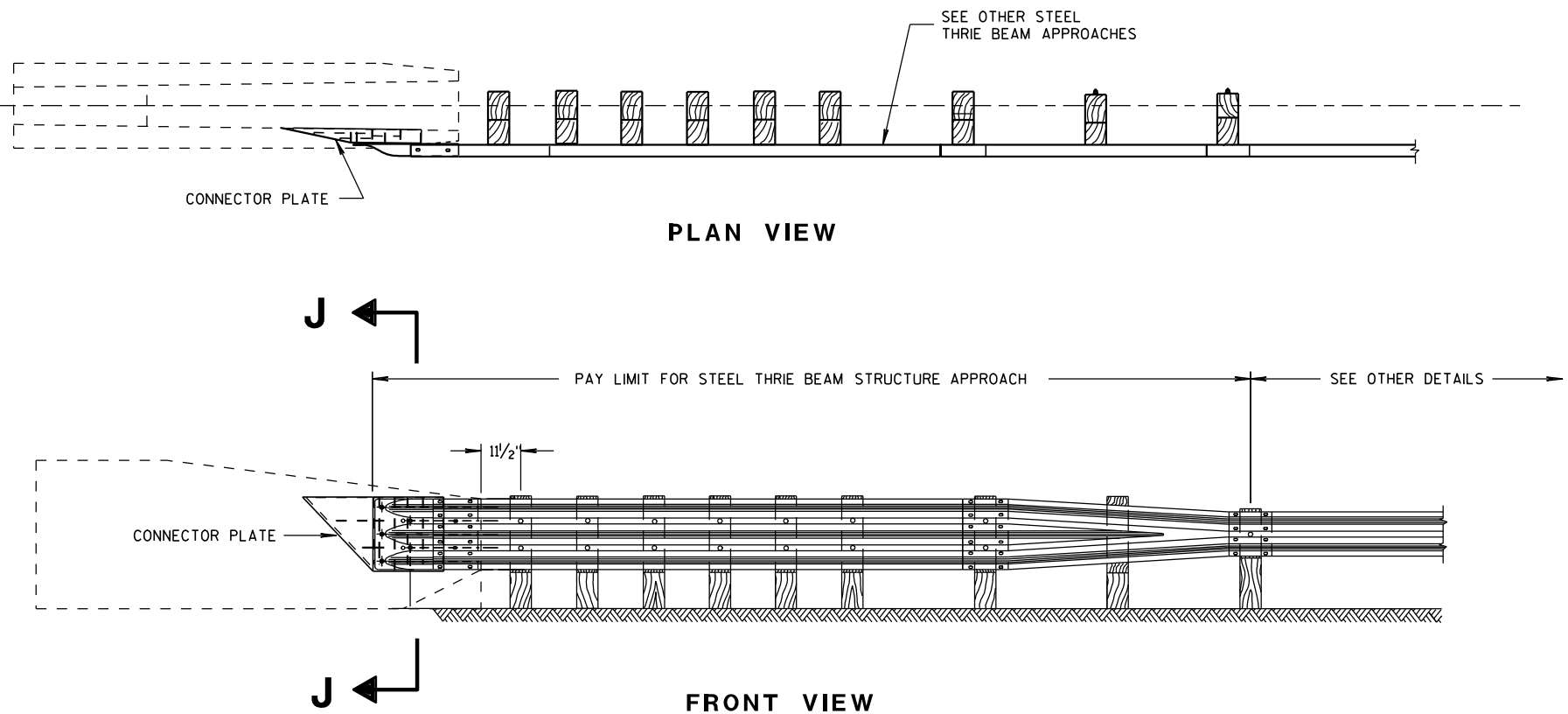
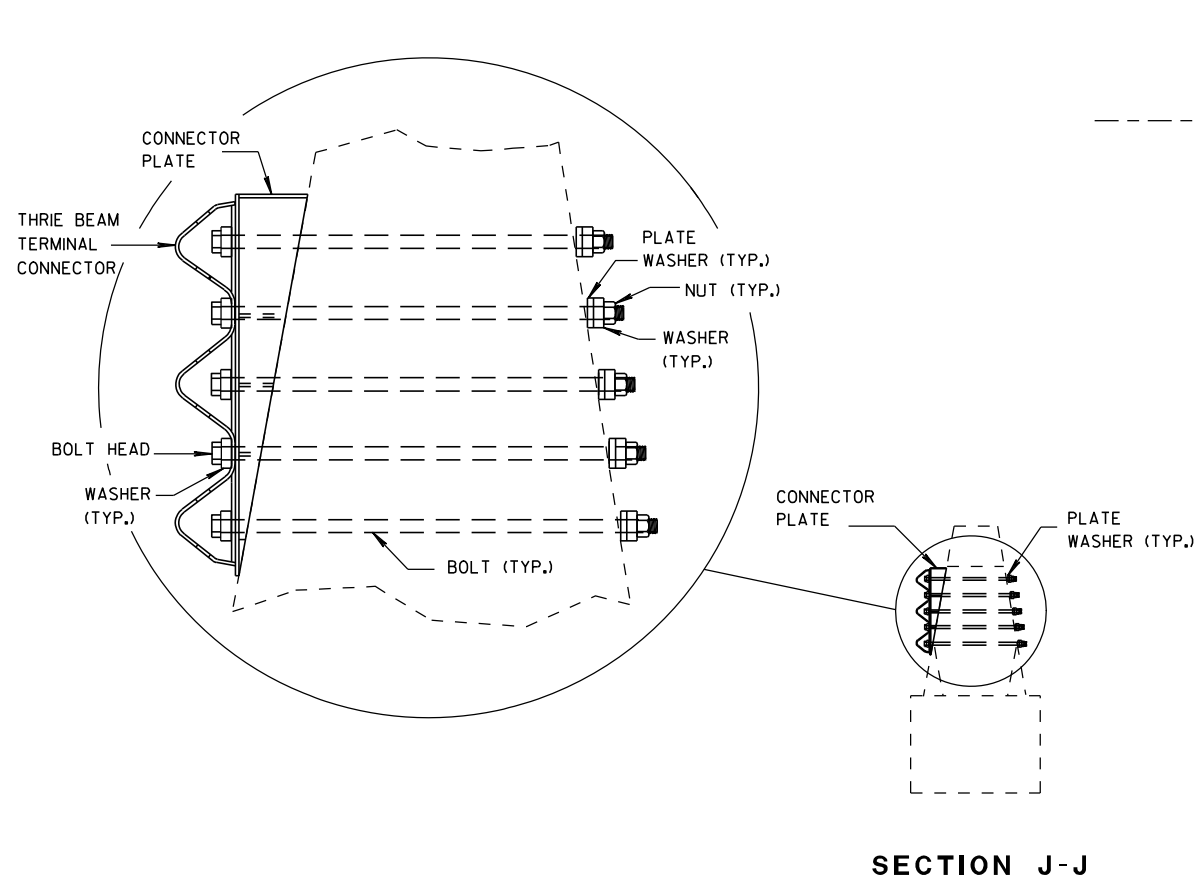


CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A × B × C × D)	THICKNESS
P1	1		20" × 20"	3/16"
P2	1		20" × 20" × 28 1/8"	3/16"
P3	1		39" × 3 5/8" × 20" × 19 1/16"	3/16"
S1	4		18 1/16" × 3 5/8" × 18 3/4"	1/4"
S2	1		10 1/4" × 2 1/16" × 10 3/8" × 1/2"	1/4"
S3	1		3" × 1 1/16" × 3 1/8" × 1/2"	1/4"
S4	1		6 1/8" × 2 1/16"	1/4"
S5	1		6 1/8" × 1 1/16"	1/4"
S6	1		7 3/4" × 1 3/4"	1/4"
S7	1		2 3/16" × 6" × 3 3/8" × 5 7/8"	1/4"
S8	1		1 7/32" × 7 1/2" × 2 1/2" × 7 3/8"	1/4"
S9	1		6 1/16" × 6 3/16" × 1 3/32"	1/4"
S10	1		1 7/8" × 9 7/8" × 3 3/8" × 9 1/16"	1/4"
S11	1		8 1/2" × 8 3/4" × 1 1/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

- ① STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND $\frac{3}{8}$ " FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- ② STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
 $\frac{3}{8}$ " FILLET WELD BY 1" LONG SPACED AT 2".

159
ROADWAY STANDARDS
ENGINEER

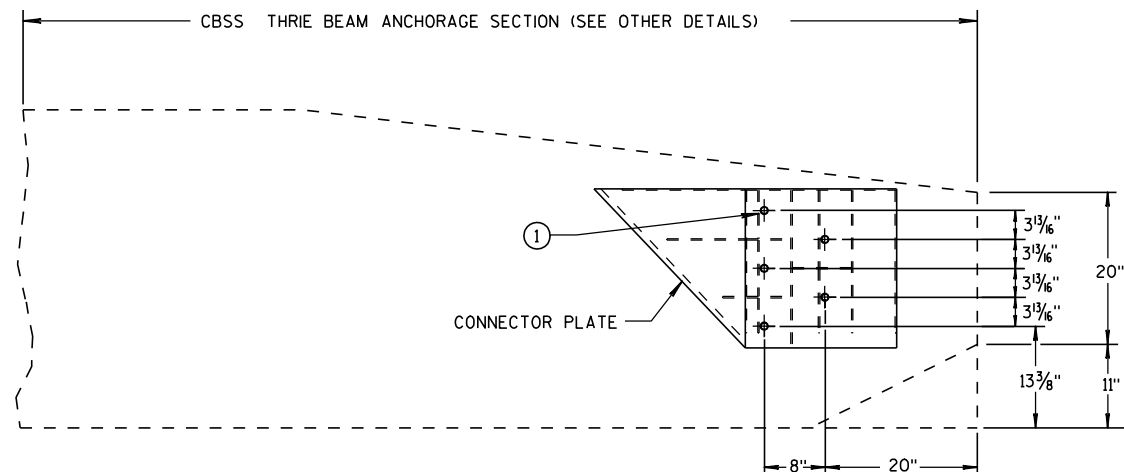


GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- ① BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X $\frac{5}{16}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



CONNECTOR PLATE LOCATION

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM
STRUCTURE APPROACH,
SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

DATE

FHWA

/S/ Jerry H. Zacc

ROADWAY STANDARDS 160

ENGINEER

160

160

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA, 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA, 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
⑮	1	E.A.T. MARKER POST

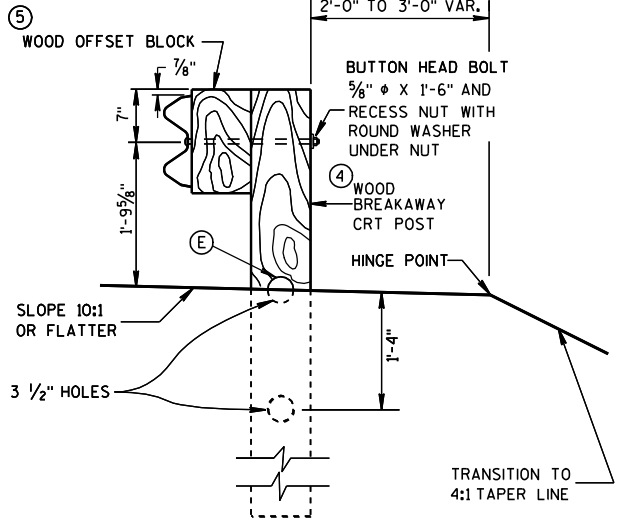
GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL 5/8" Ø X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

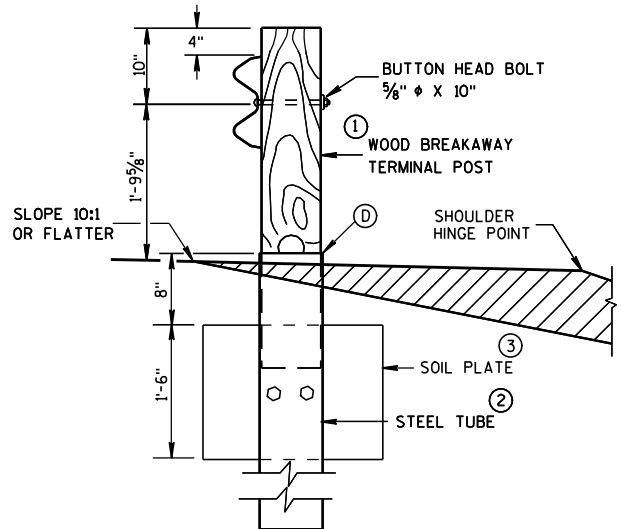
- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER OF E.A.T. STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

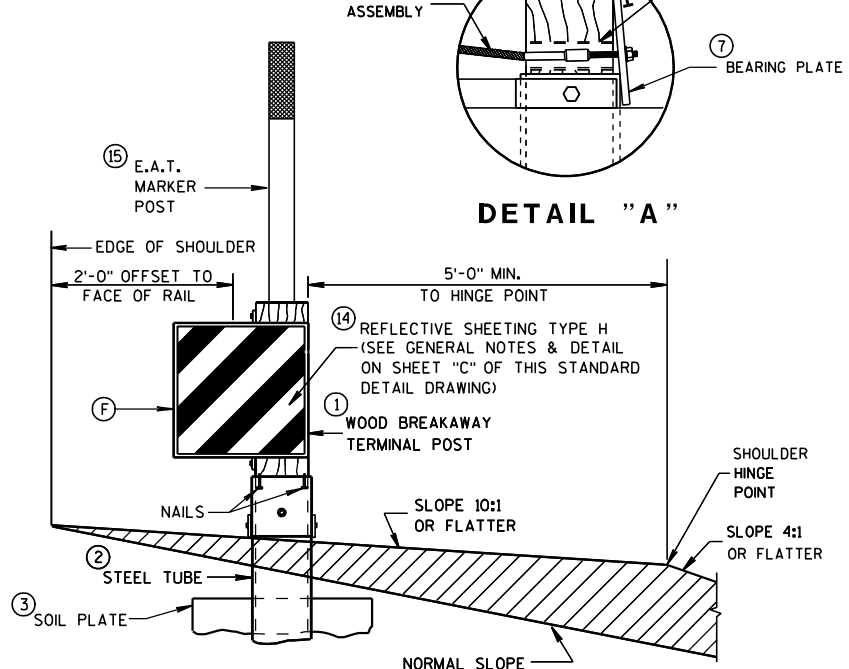
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



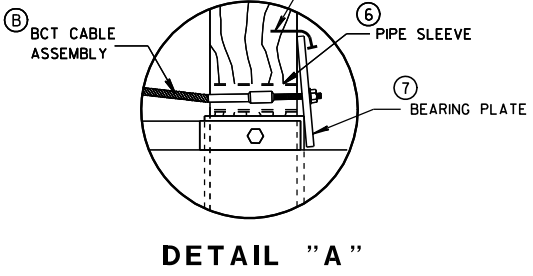
SECTION C-C
TYPICAL AT POST NOS. 6, 8



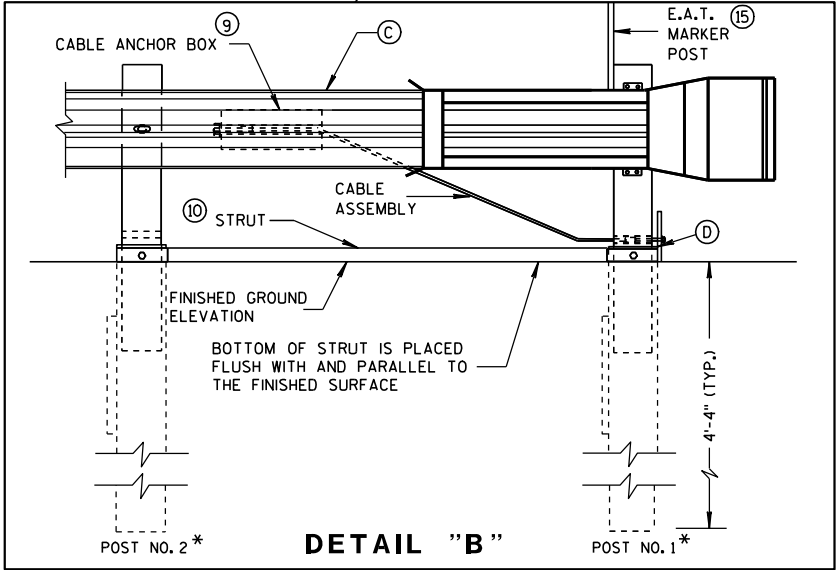
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



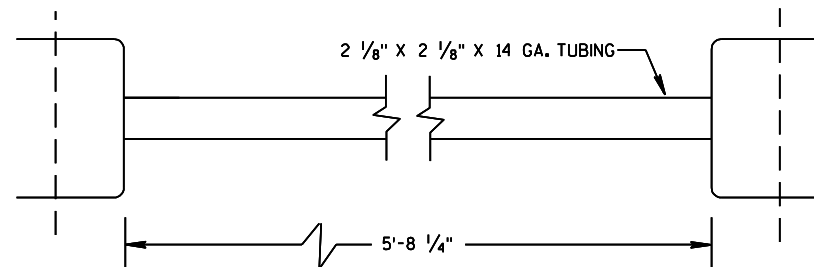
DETAIL "A"



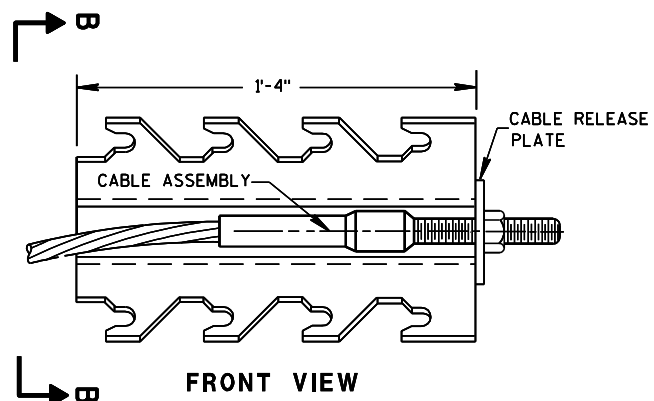
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

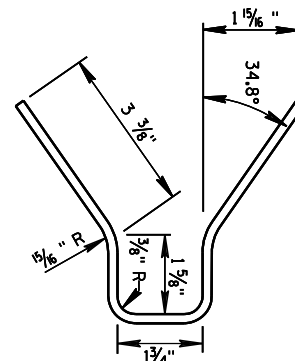


⑩ STRUT DETAIL (SKT-350)

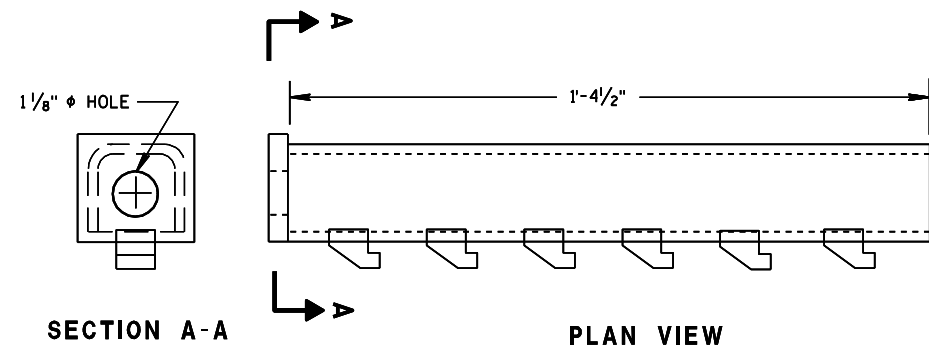


⑨ CABLE ANCHOR BOX (SKT-350)

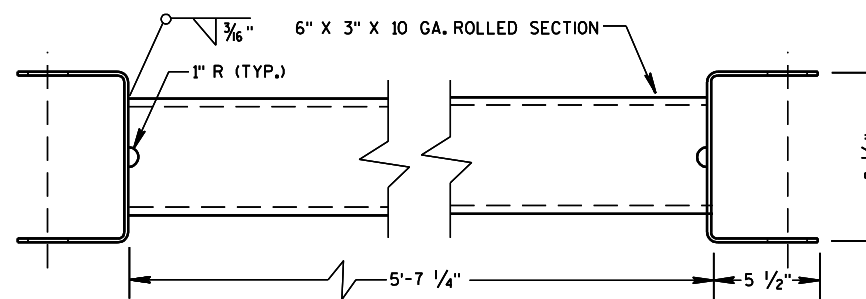
(SKT-350)



SECTION B-B

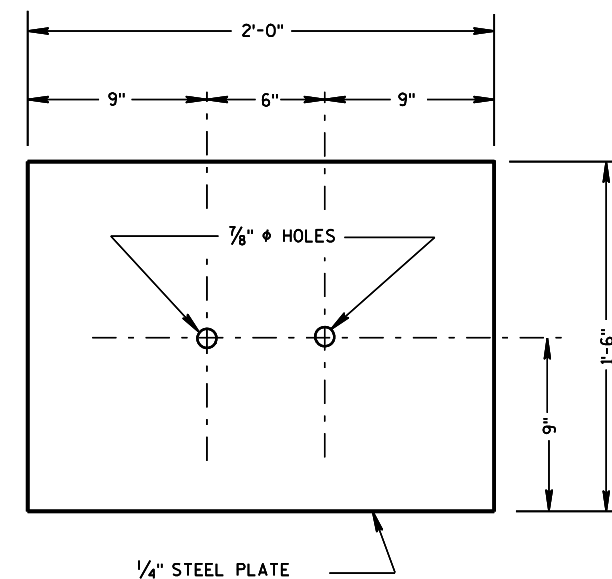


⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)

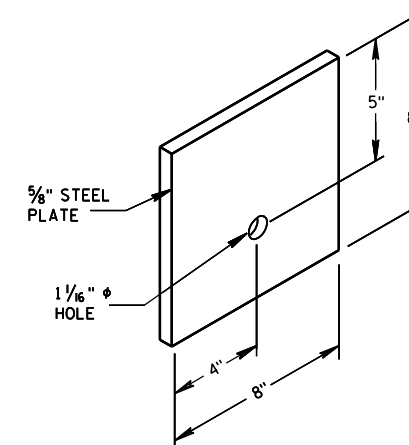


⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



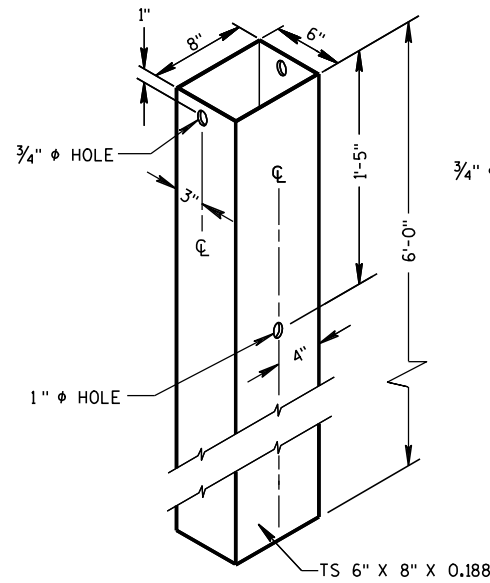
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



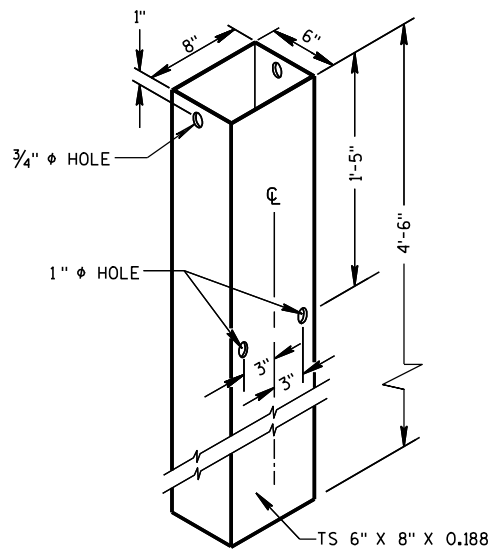
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

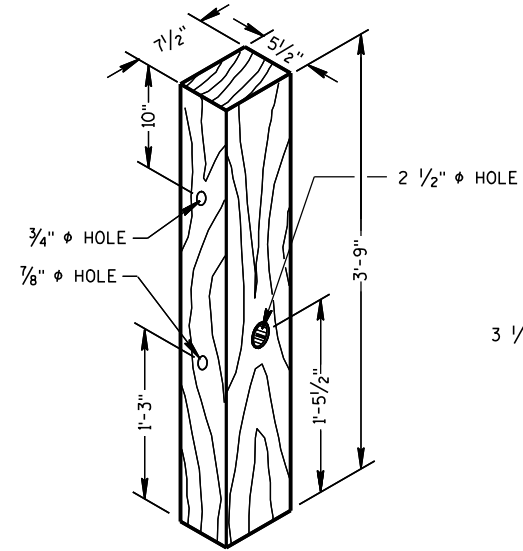
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



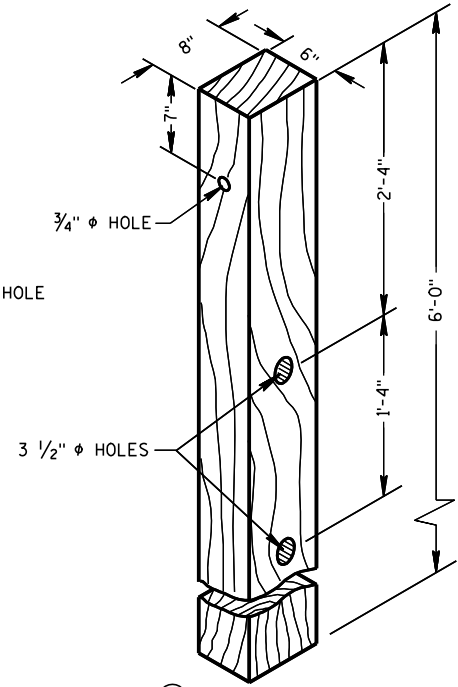
② **72" STEEL TUBE**
(POSTS NO. 1-4)



② **54" STEEL TUBE**
(POSTS NO. 1-4)

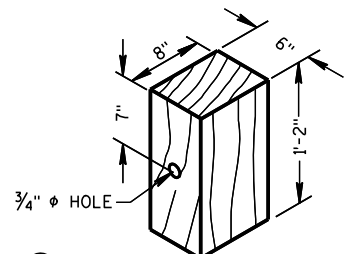


① **TERMINAL POST**
(POSTS NO. 1-4)

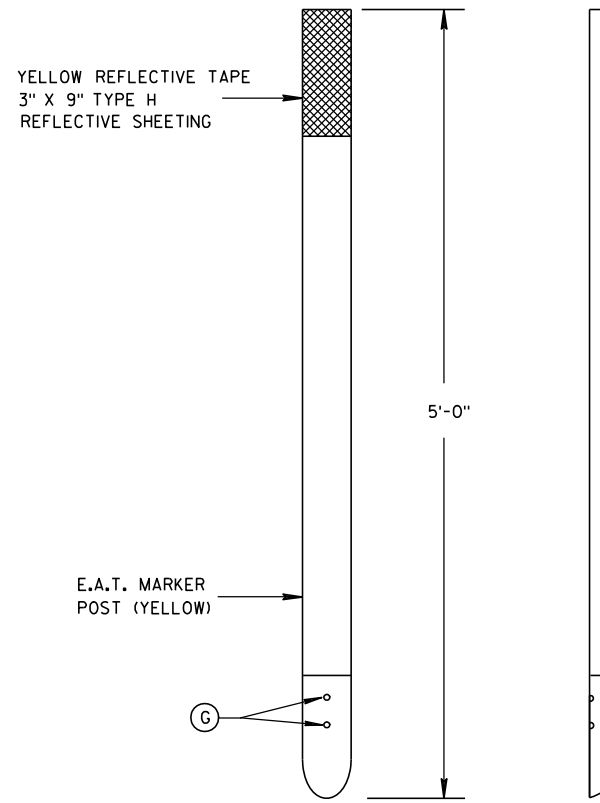


④ **CRT POST**
(POSTS NO'S 5-8)

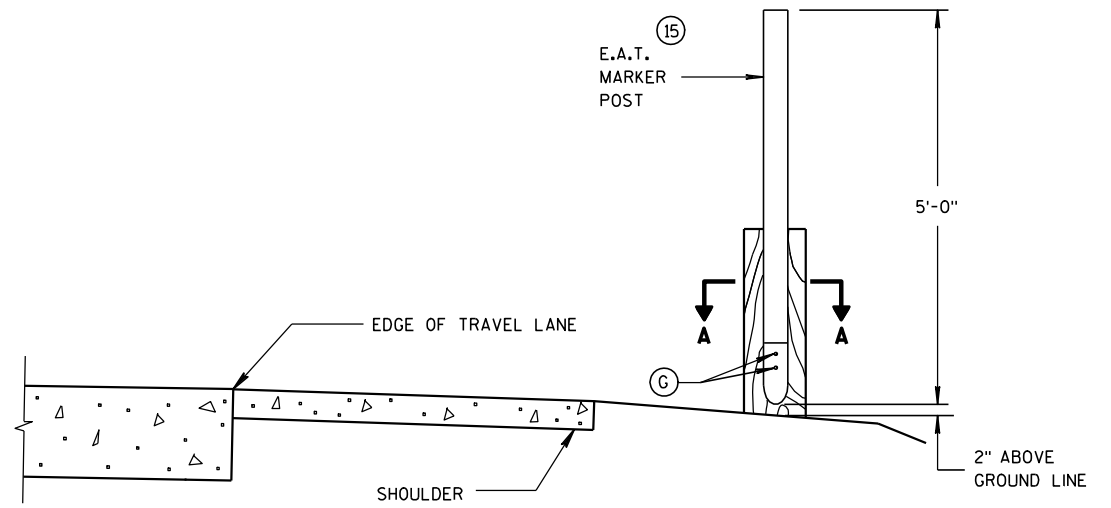
WOOD BREAKAWAY POSTS



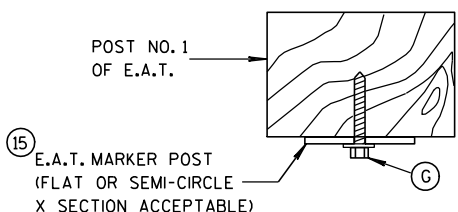
⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑮ **E.A.T. MARKER POST**



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

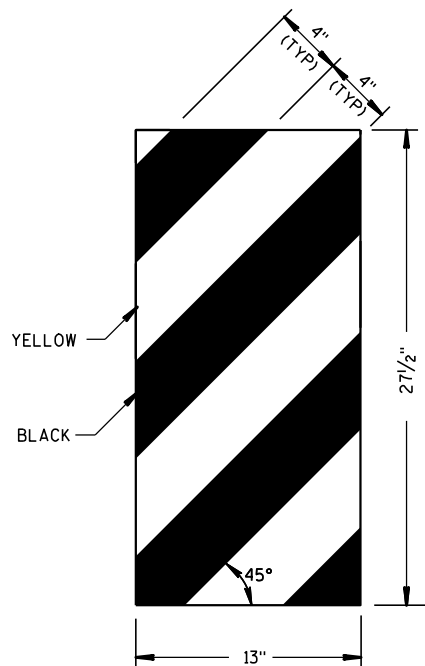
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

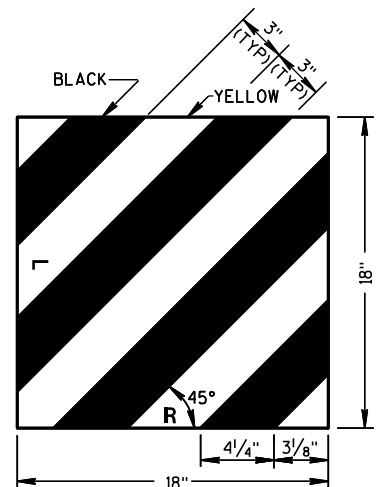
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

⑮ 1/2" DIA. X 3" LAG BOLT WITH WASHER.



ET-2000 PLUS ONLY



ET-2000 AND SKT-350

⑭ **REFLECTIVE SHEETING DETAILS**

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

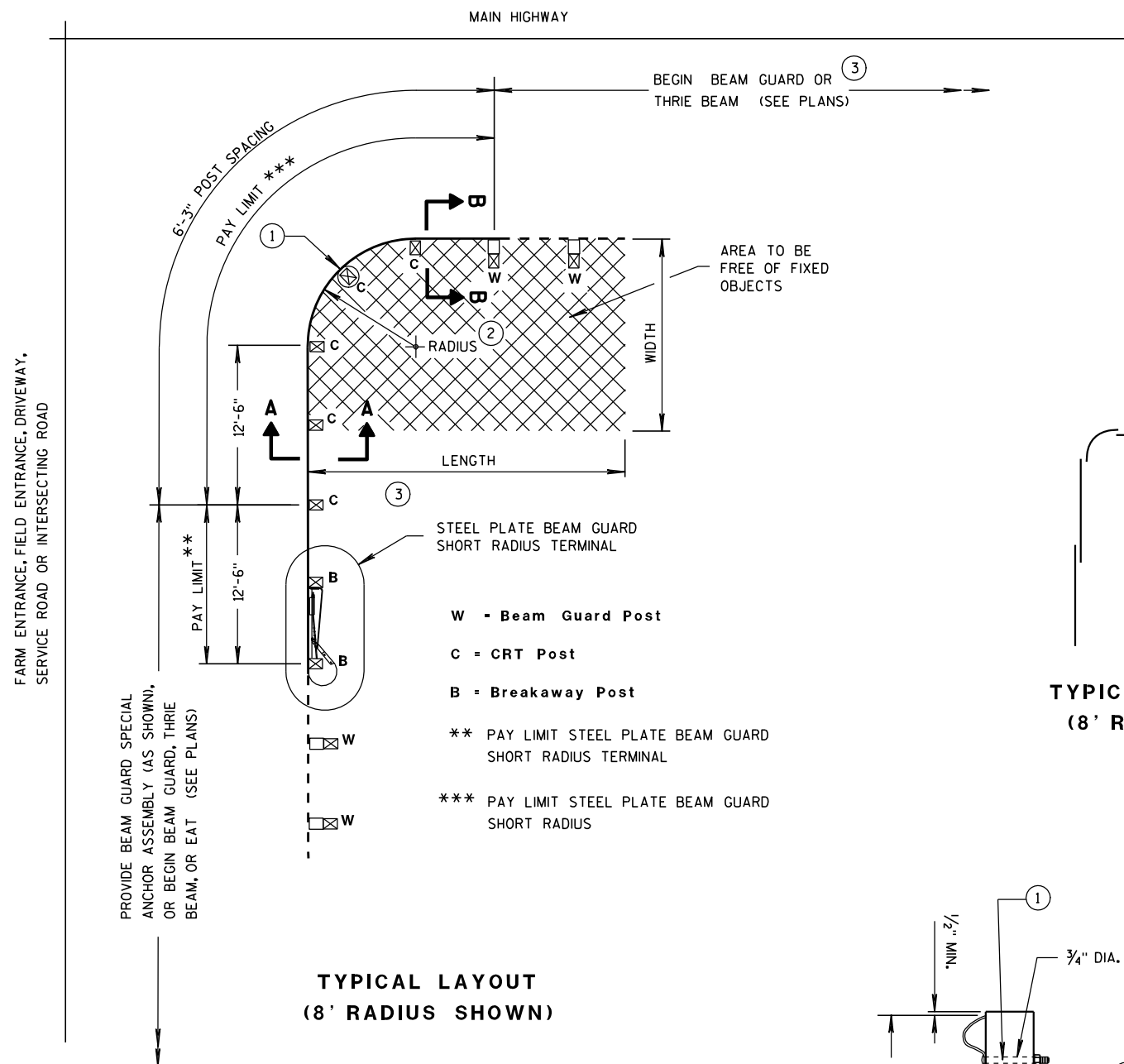
APPROVED

4-12-10
DATE

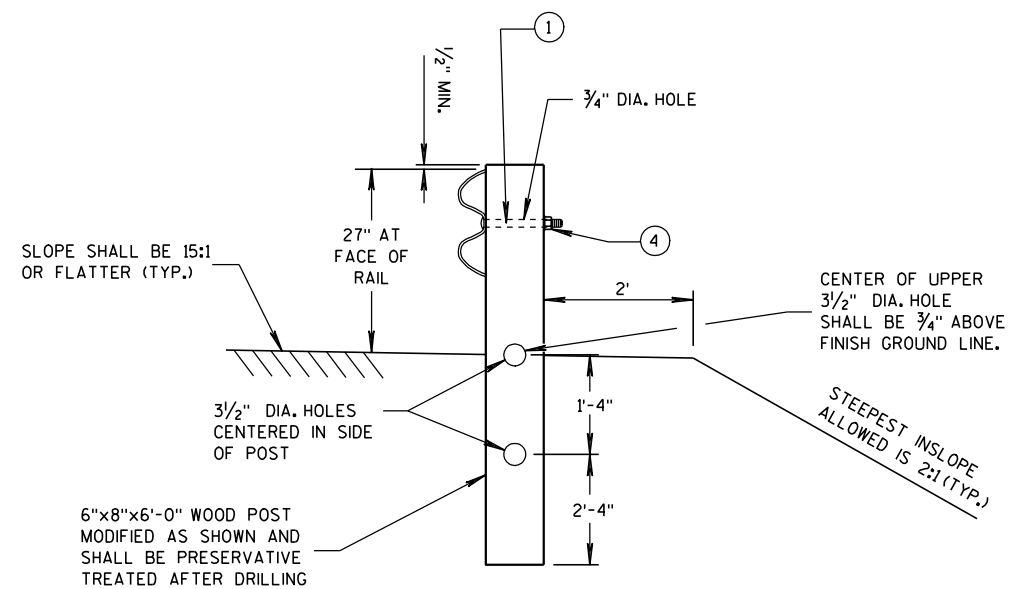
FHWA

/S/ Jerry H. Zacc
ROADWAY STANDARDS 163
ENGINEER

ENT



**TYPICAL LAYOUT
(8' RADIUS SHOWN)**



**SECTION A-A
(CRT POST)**

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

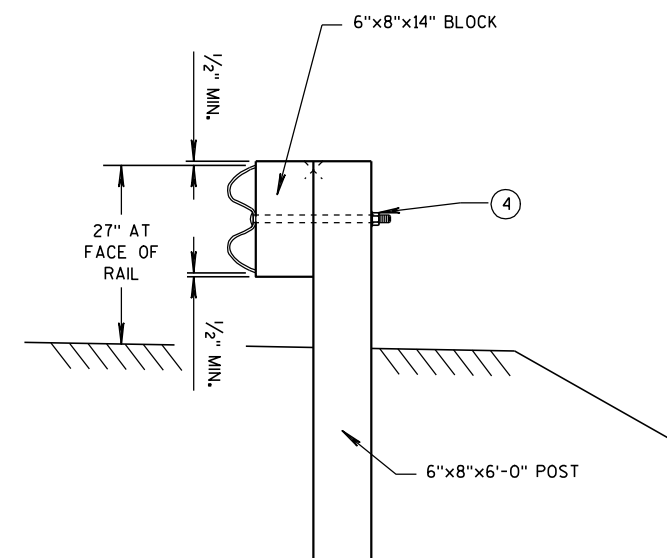
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- ① ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- ② RADIUS FROM 8' - 36'. SEE PLAN.
- ③ HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- ④ 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



**SECTION B-B
(BEAM GUARD POST)**

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



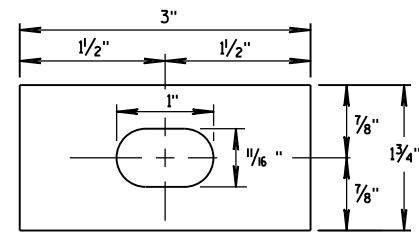
GENERAL NOTES

-
- Diagram illustrating the assembly of a structural tube welded to a steel plate:
- STRUCTURAL TUBE**: Dimensions are $2\frac{1}{2}" \times 2\frac{1}{2}" \times \frac{1}{4}" \times 8"$. It is noted to be welded prior to galvanizing.
 - STEEL PLATE WITH $\frac{1}{16}"$ DIA. HOLE**: Dimensions are $2\frac{1}{2}" \times 2\frac{1}{2}" \times \frac{1}{4}"$. It is tack welded to the structural tube.
 - 1" DIA. NUT**: A nut is shown being threaded onto the stud.
 - 1" JAM NUT**: A jam nut is shown being threaded onto the stud.
 - 1" DIA. $\times$ 4" STUD THREADED FULL LENGTH**: A threaded stud is shown passing through the steel plate and structural tube.

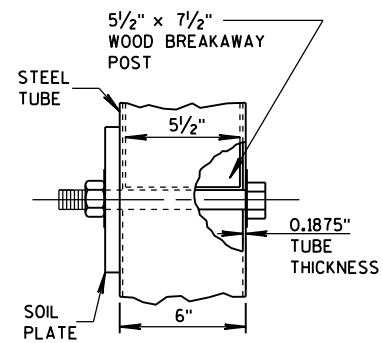
DETAIL A



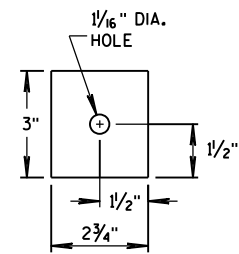
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



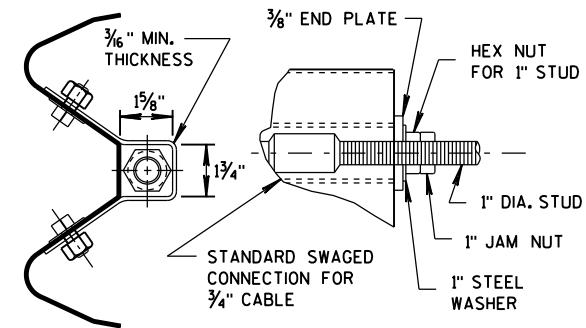
RECTANGULAR PLATE WASHER



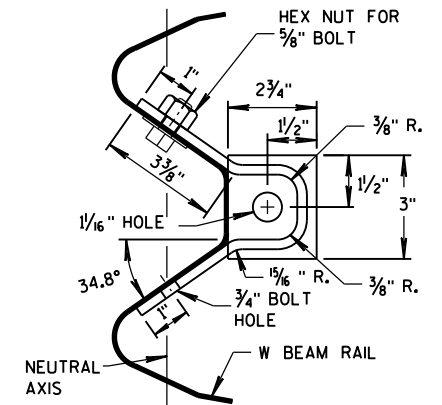
DETAIL D



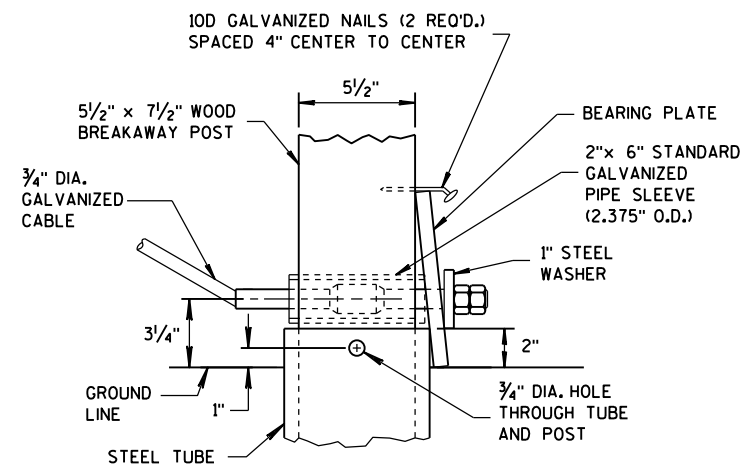
END PLATE



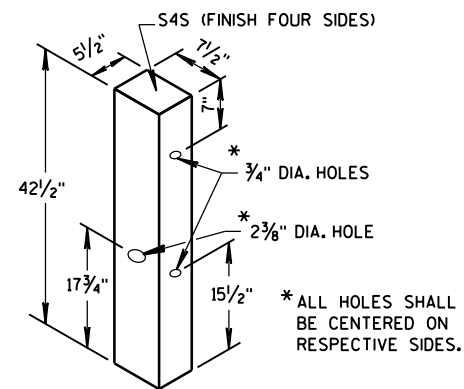
SECTION C-C
(END PLATE REMOVED)



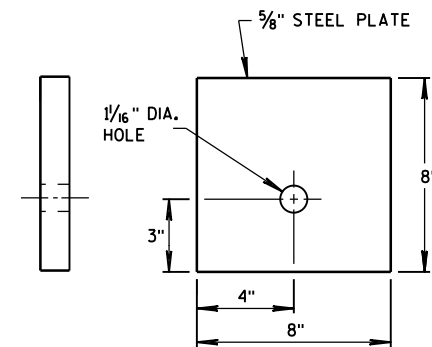
ANCHOR BRACKET



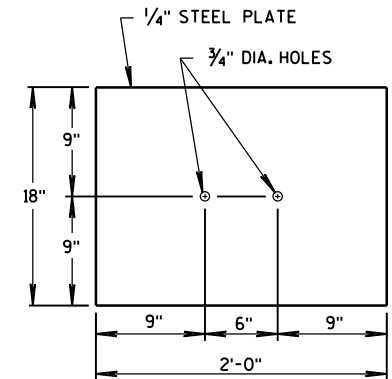
DETAIL C



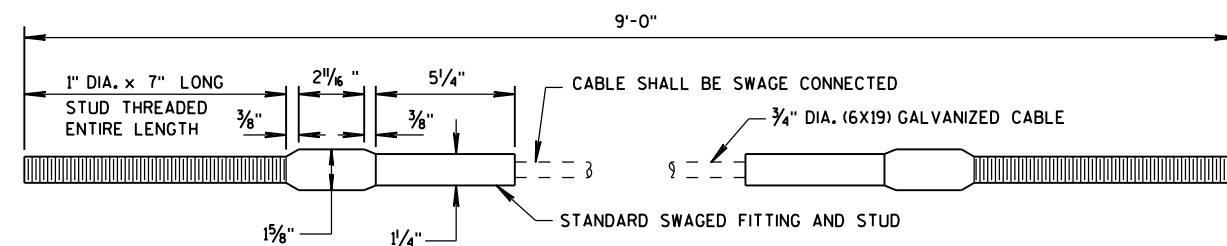
WOOD BREAKAWAY POST



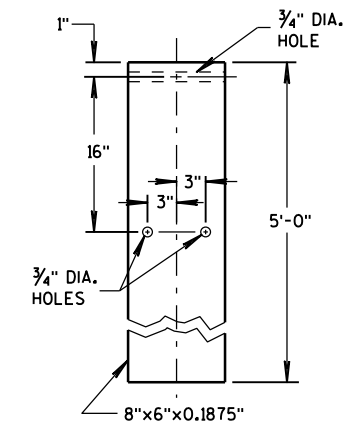
BEARING PLATE



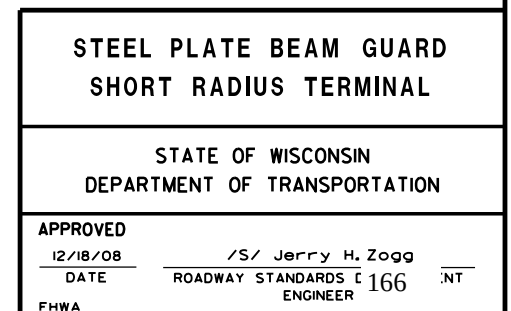
SOIL PLATE

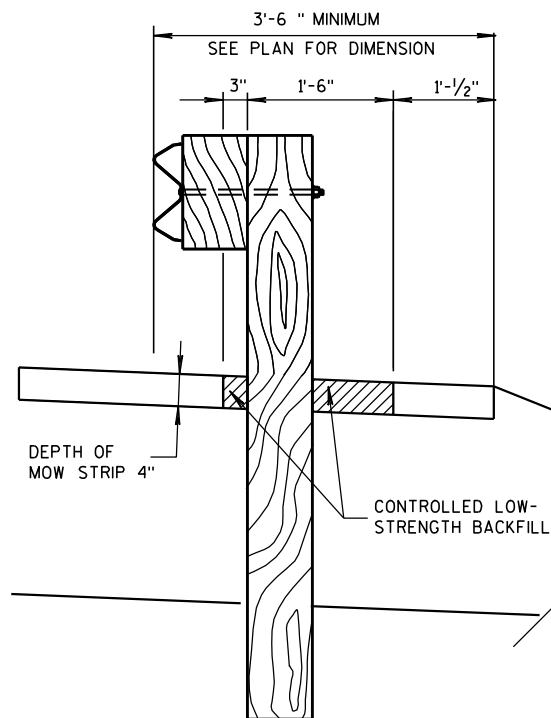


CABLE ASSEMBLY

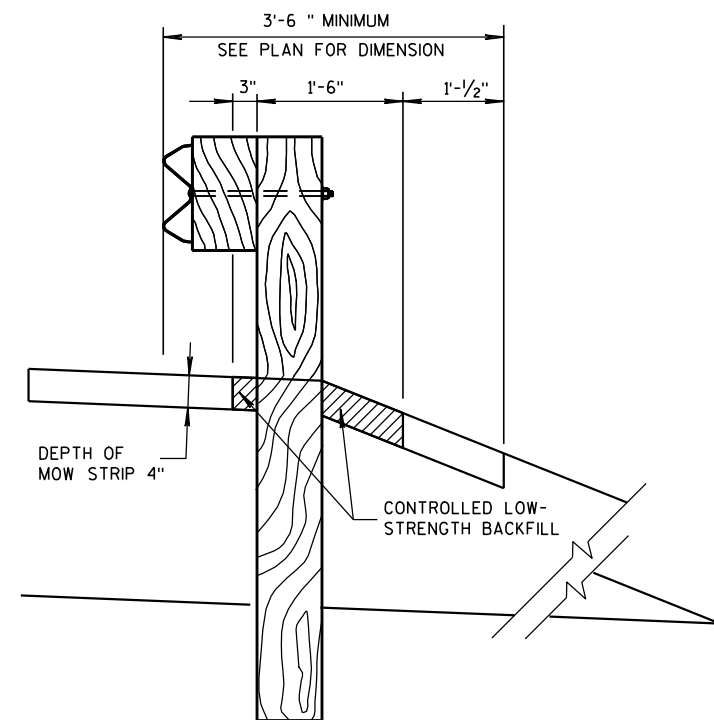


STEEL TUBE

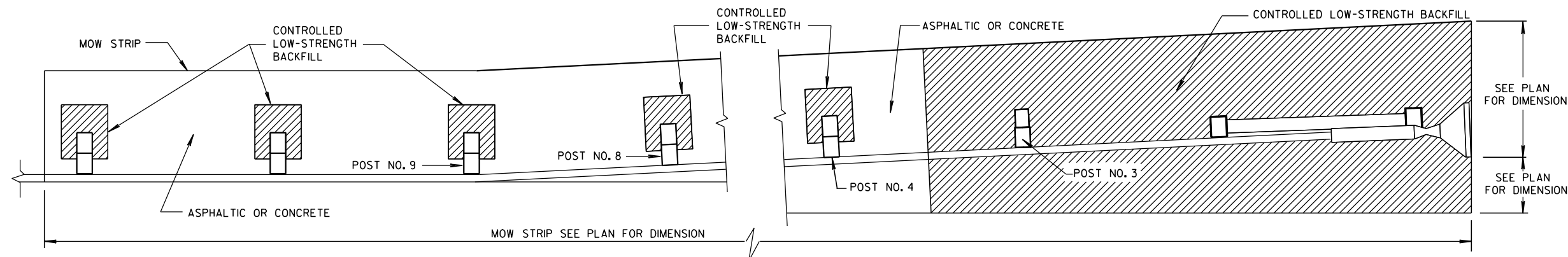




SECTION A-A

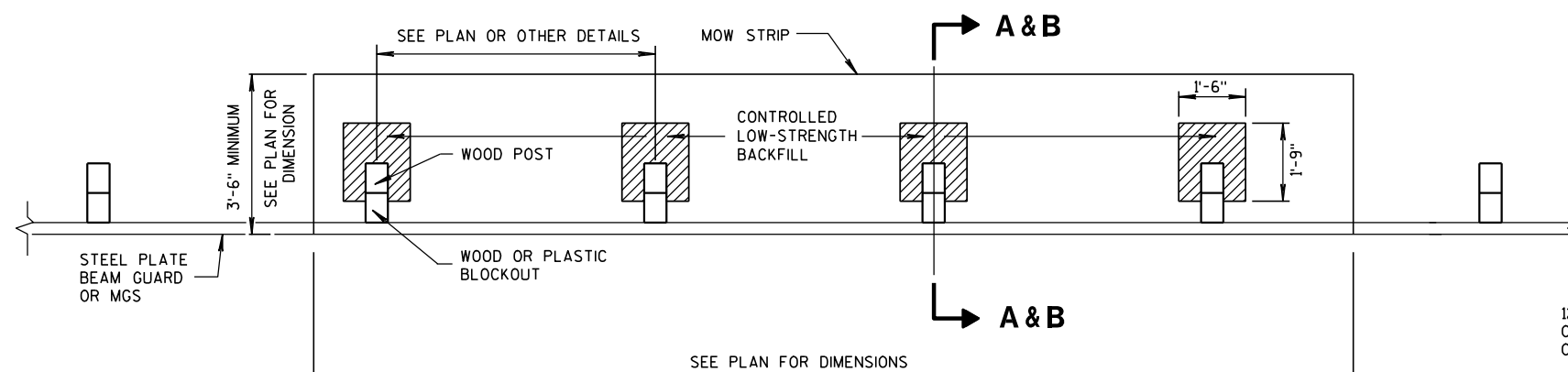


SECTION B-B



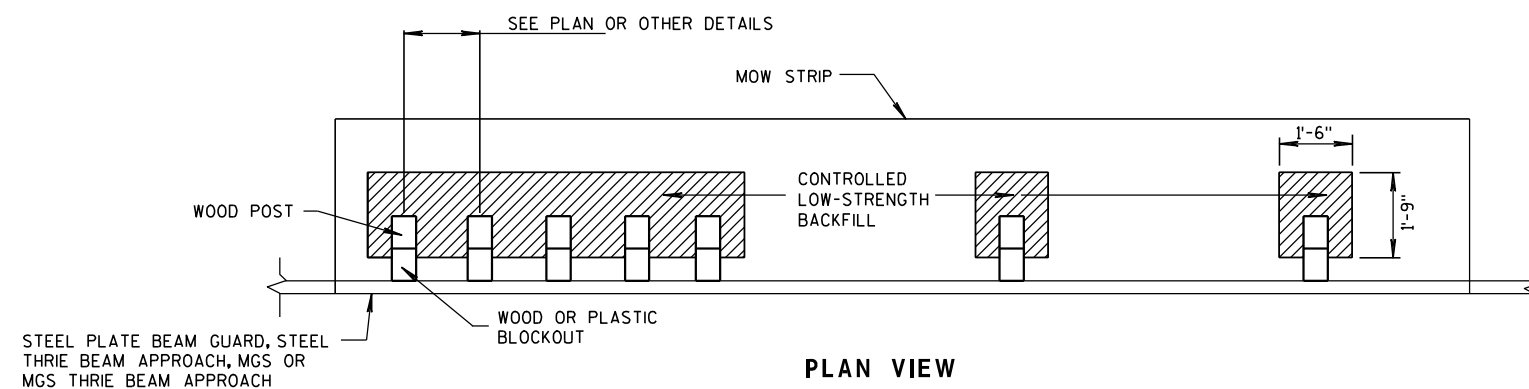
PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORING TERMINAL



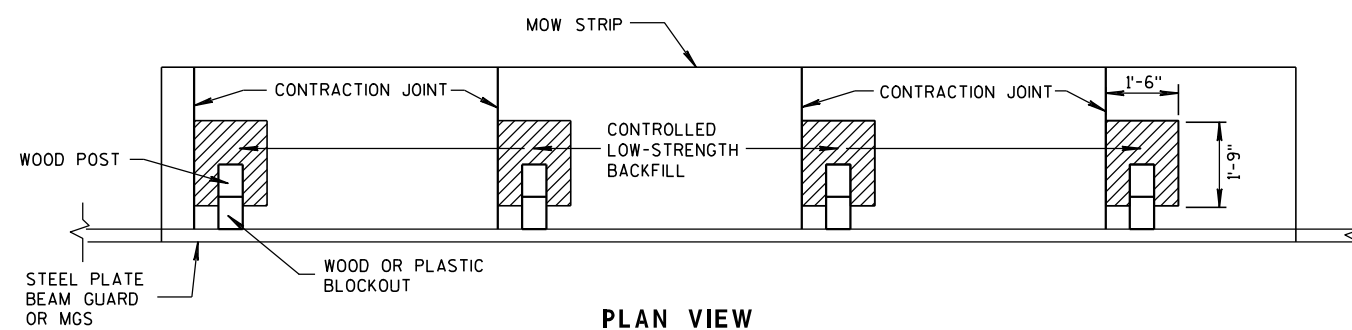
PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



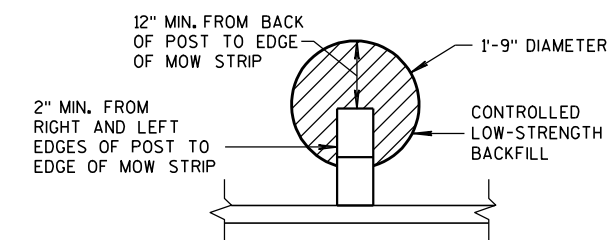
PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

ALTERNATIVE HMA
MOW STRIP DESIGN

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12

DATE

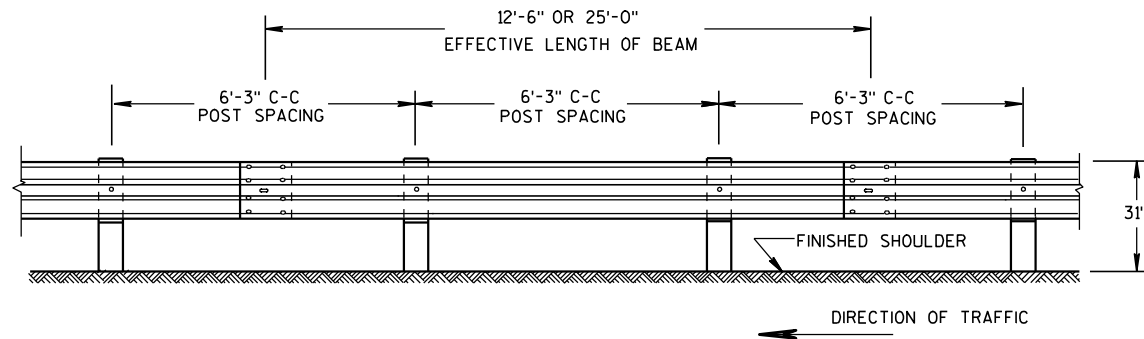
FHWA

/S/ Jerry H. Z...

ROADWAY STANDARDS 167

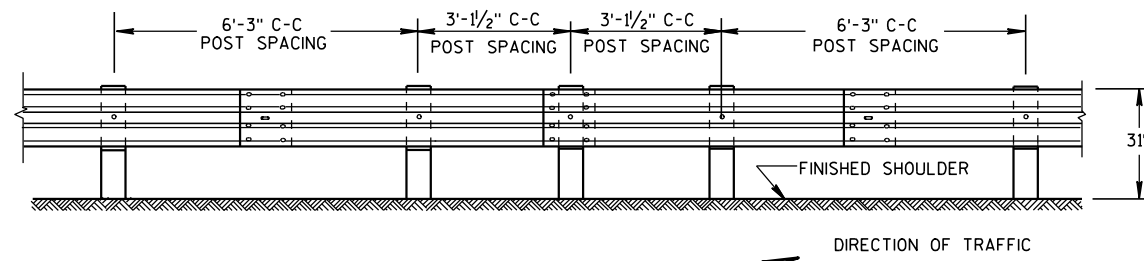
ENGINEER

ENT



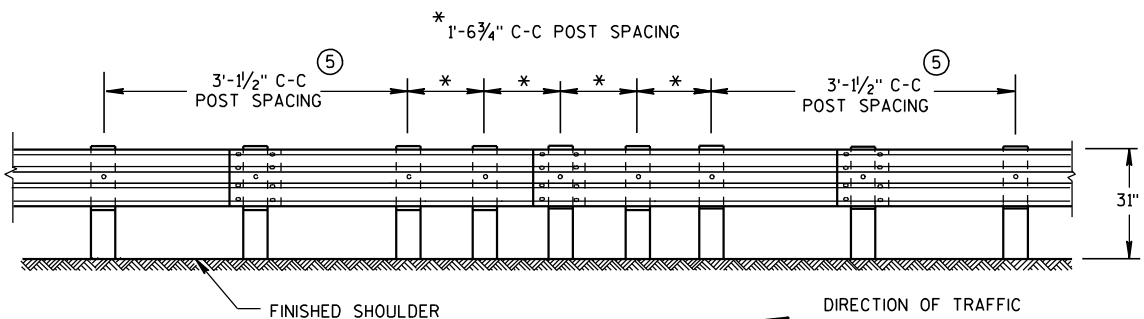
FRONT VIEW

POST SPACING STANDARD INSTALLATION



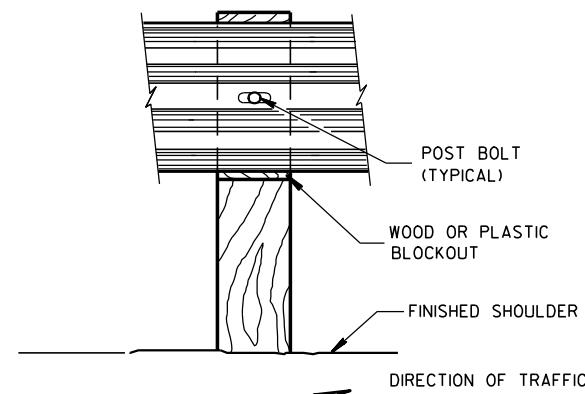
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

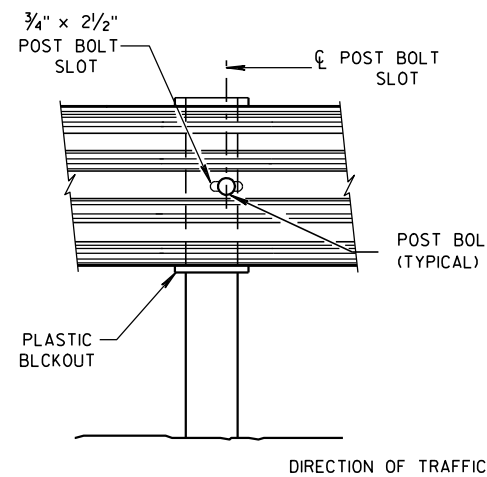


FRONT VIEW

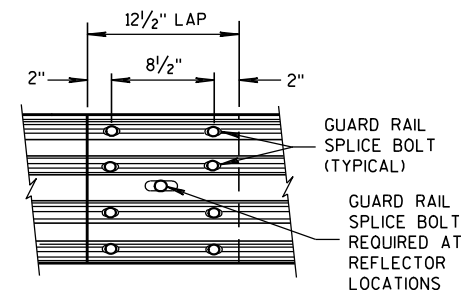
QUARTER POST SPACING (QS)



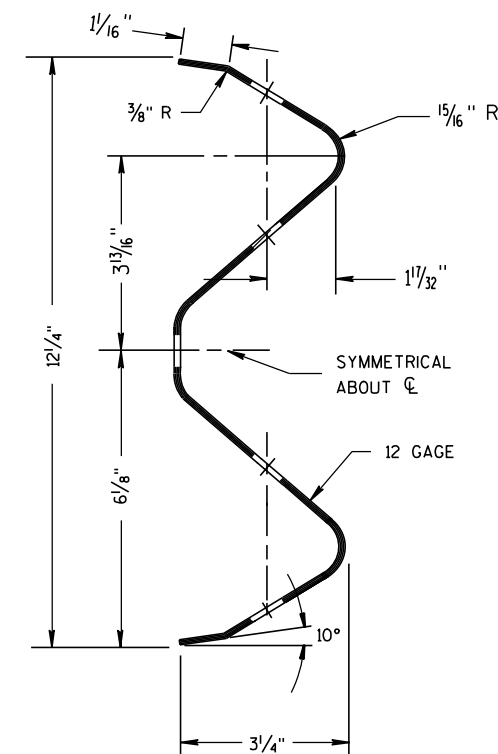
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



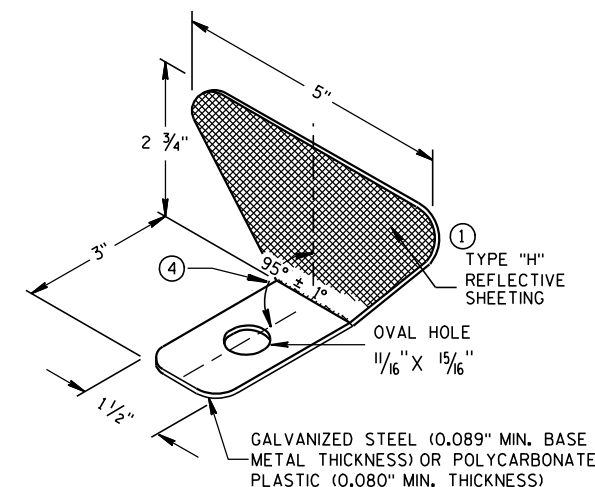
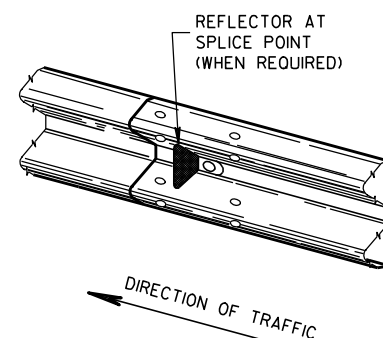
FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

REFLECTOR SPACING^②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ^③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ^④	3
	> 200'	100' C-C	2	



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION^①

GENERAL NOTES

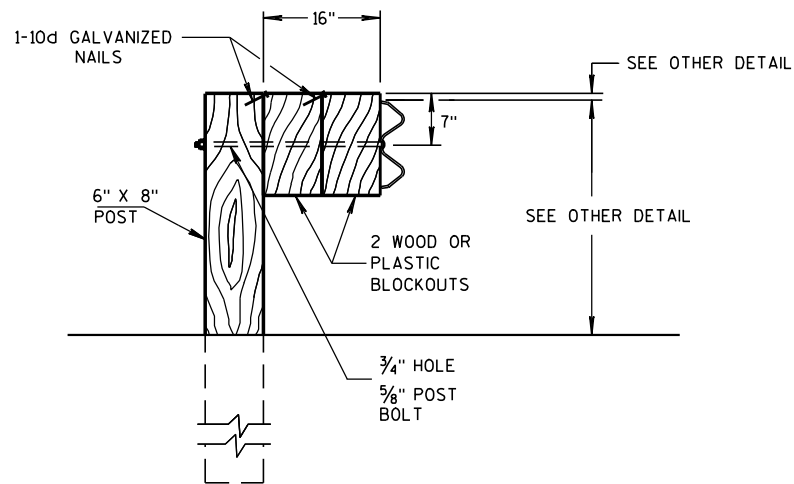
- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

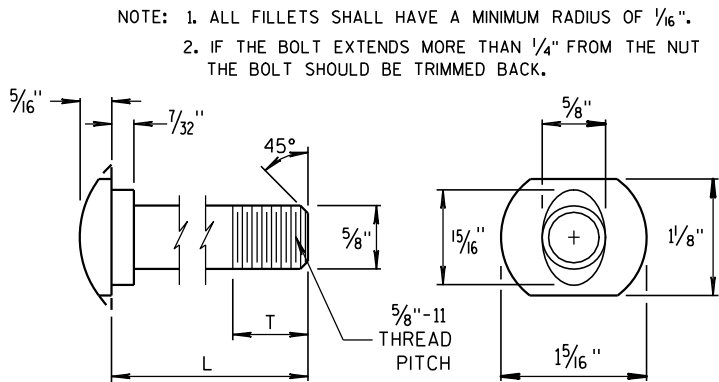
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

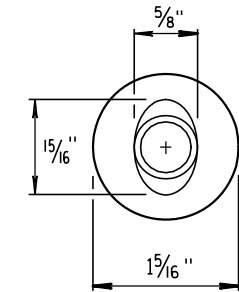


DETAIL FOR 16" BLOCKOUT DEPTH

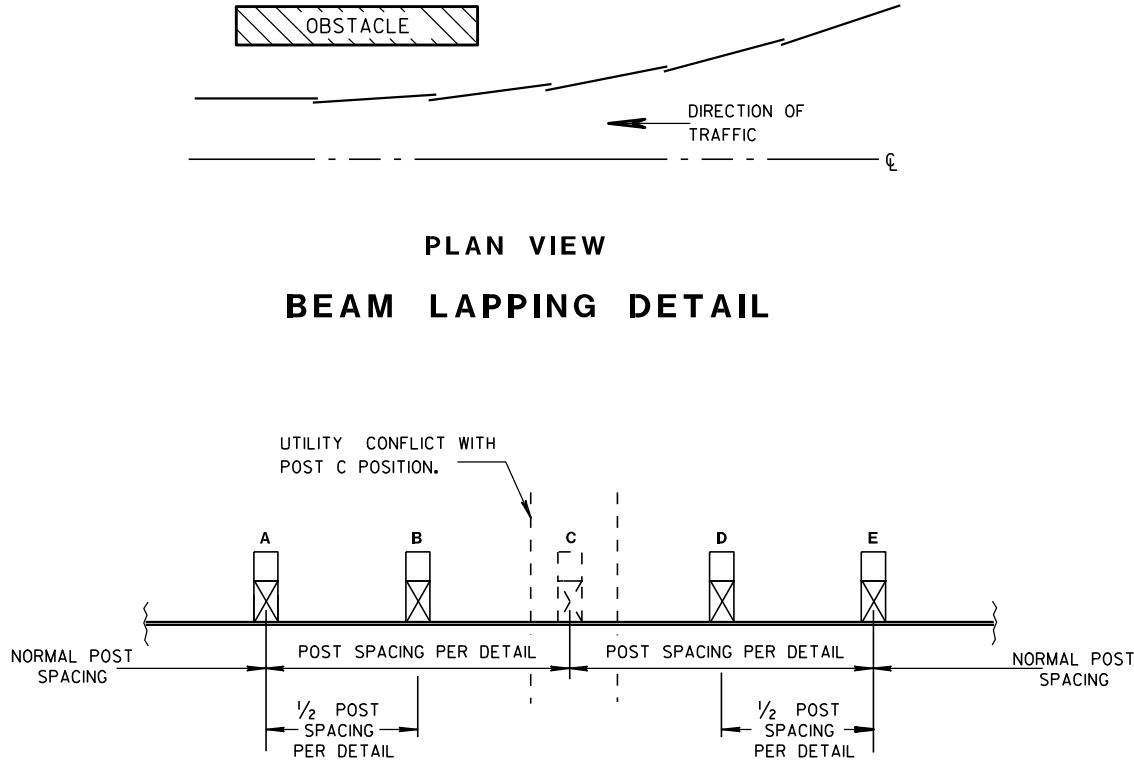
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



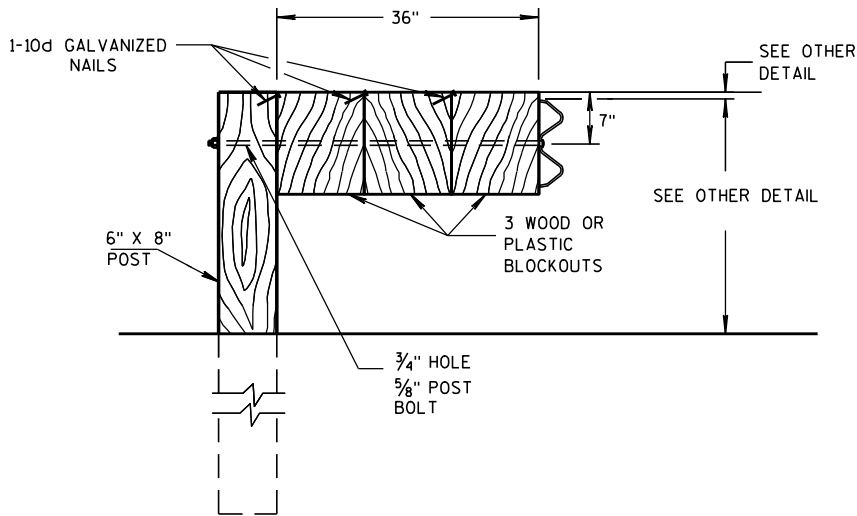
POST BOLT TABLE



ALTERNATE BOLT HEAD



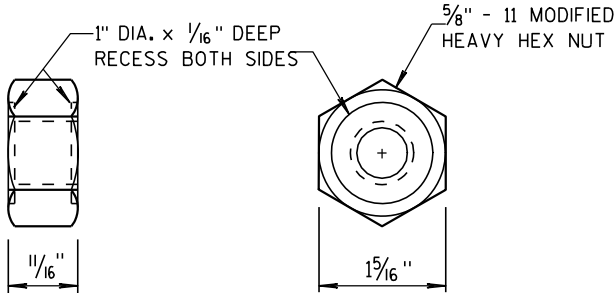
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



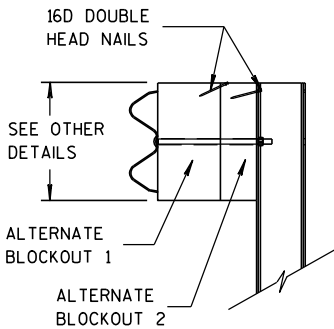
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

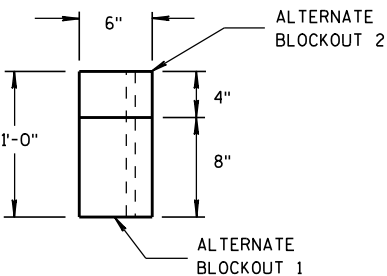
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



POST BOLT AND RECESS NUT



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 11/15/2011
FHW

15/ Jerry H. 2000
ROADWAY STANDARDS 170
ENGINEER ENT

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (G) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (H) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

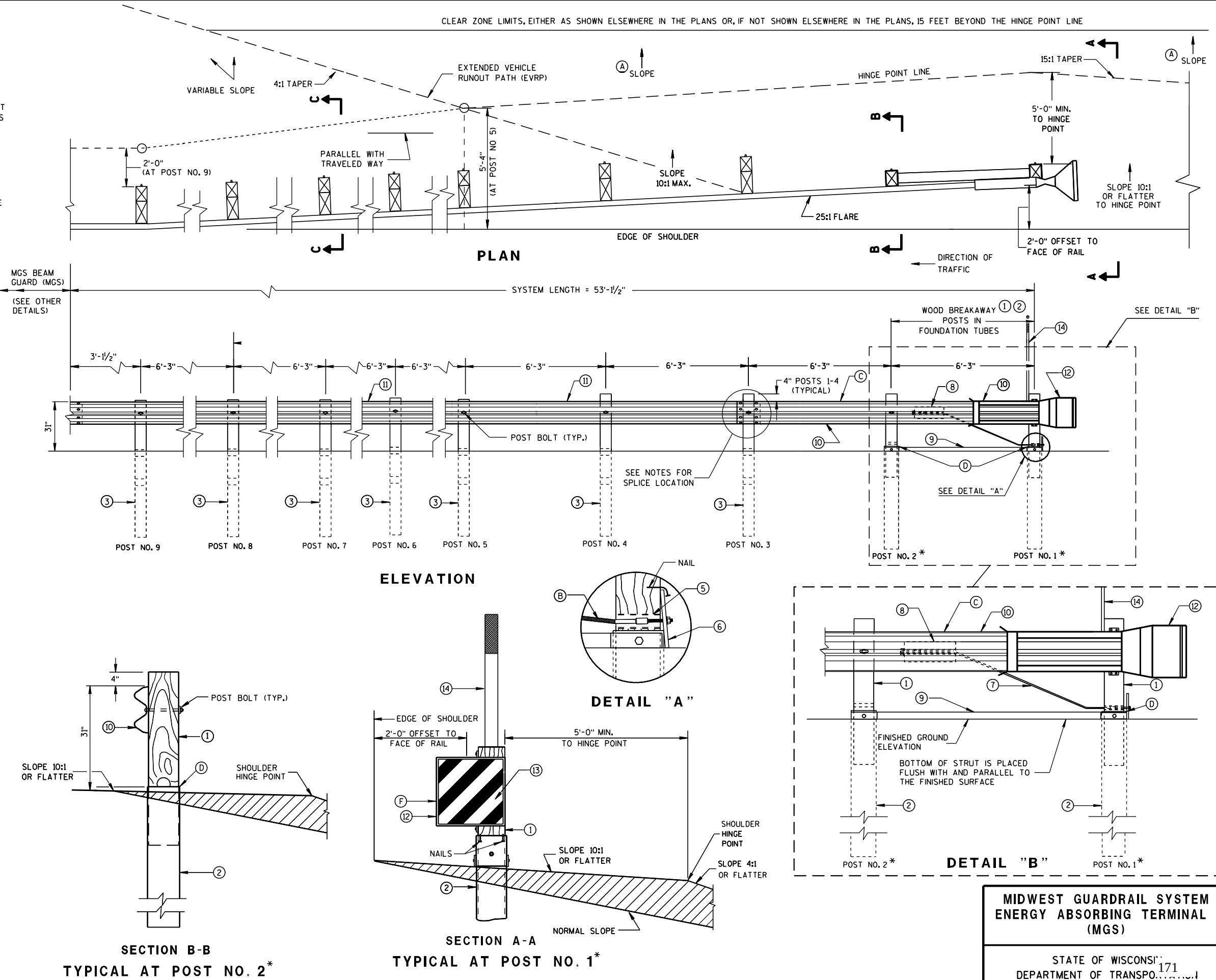
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

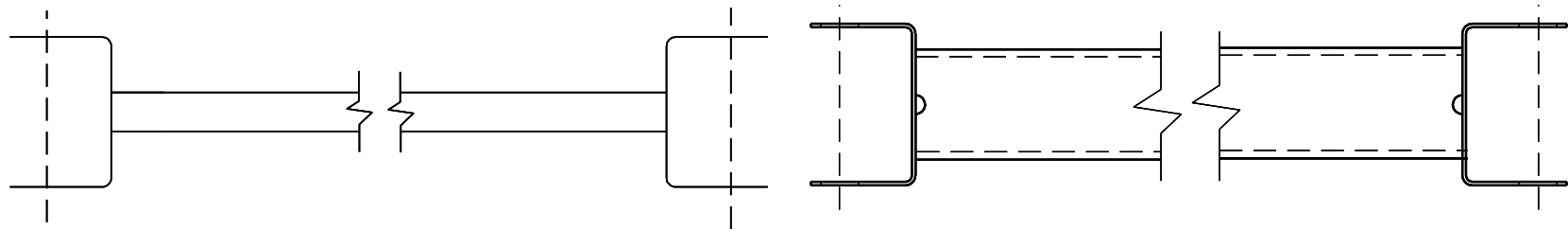
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

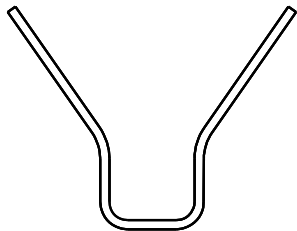
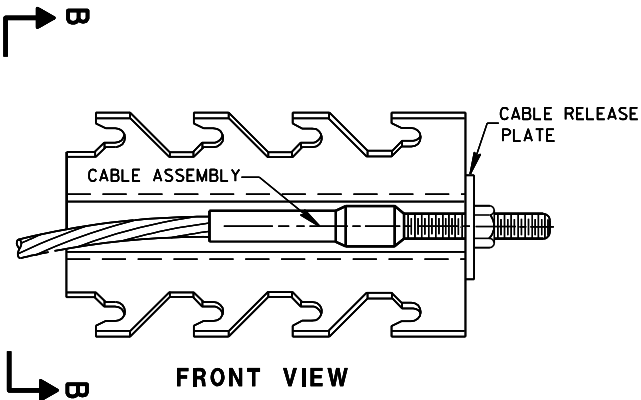
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")



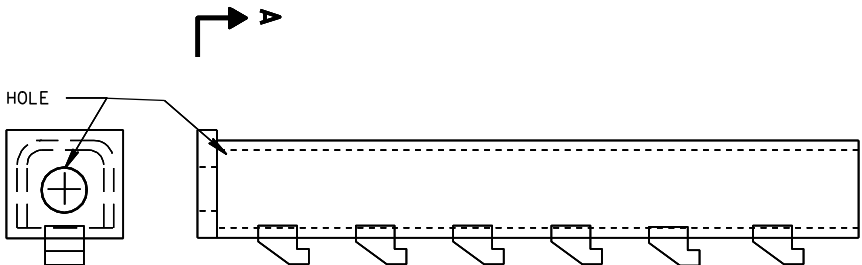


9 H

GENERIC GROUND STRUT



SECTION B-B



SECTION A-A

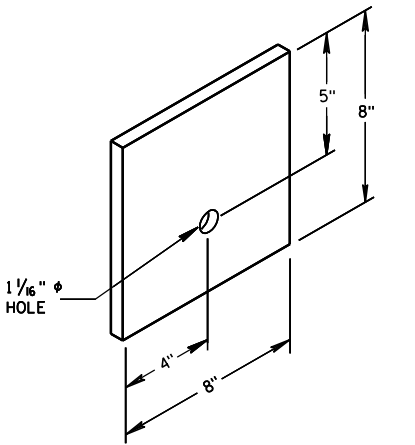
PLAN VIEW

8 H

GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL, MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)

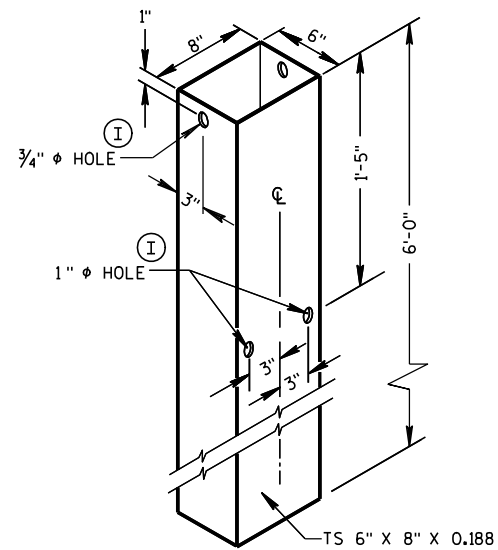


6

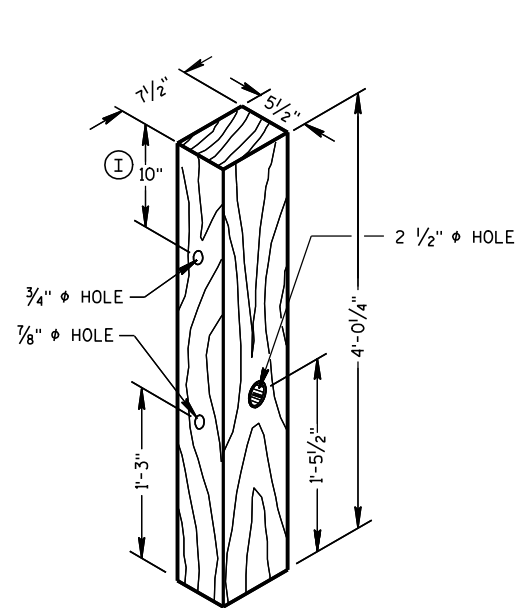
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

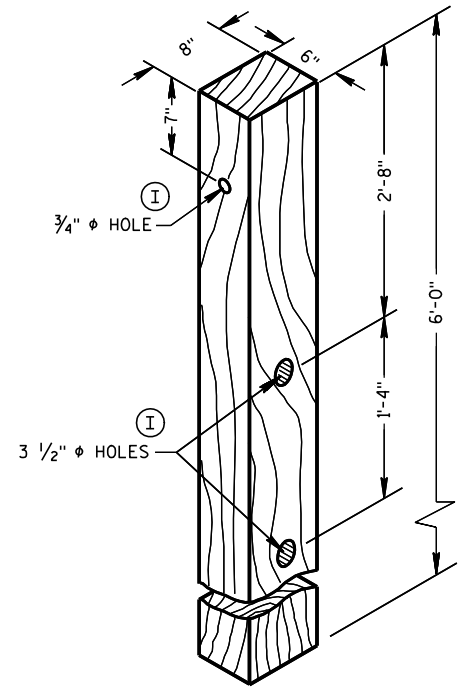
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



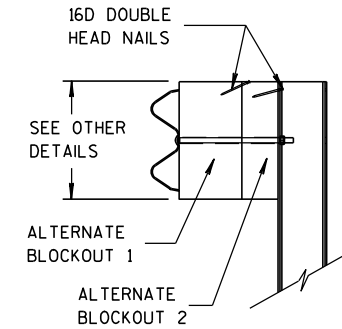
FOUNDATION TUBE ②



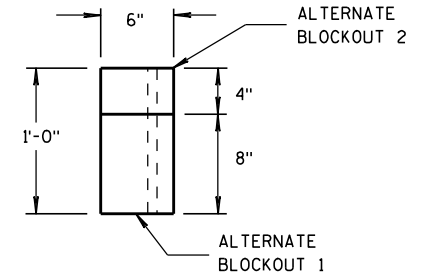
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

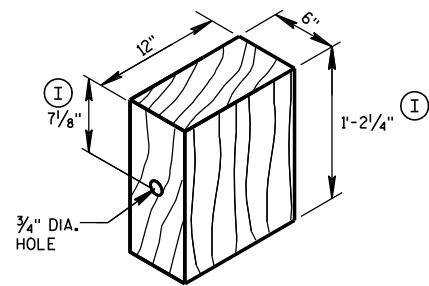


SIDE VIEW



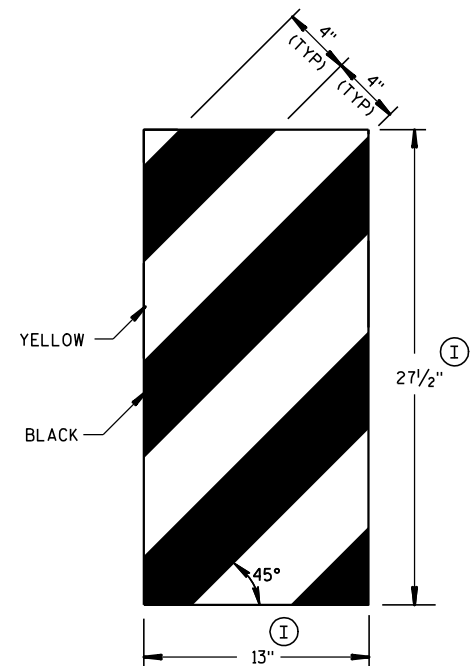
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

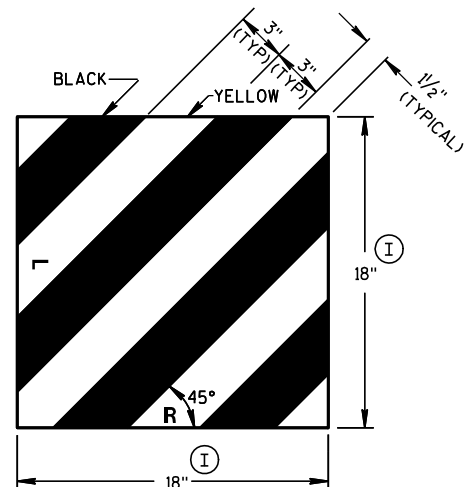


WOOD BLOCKOUT ④

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



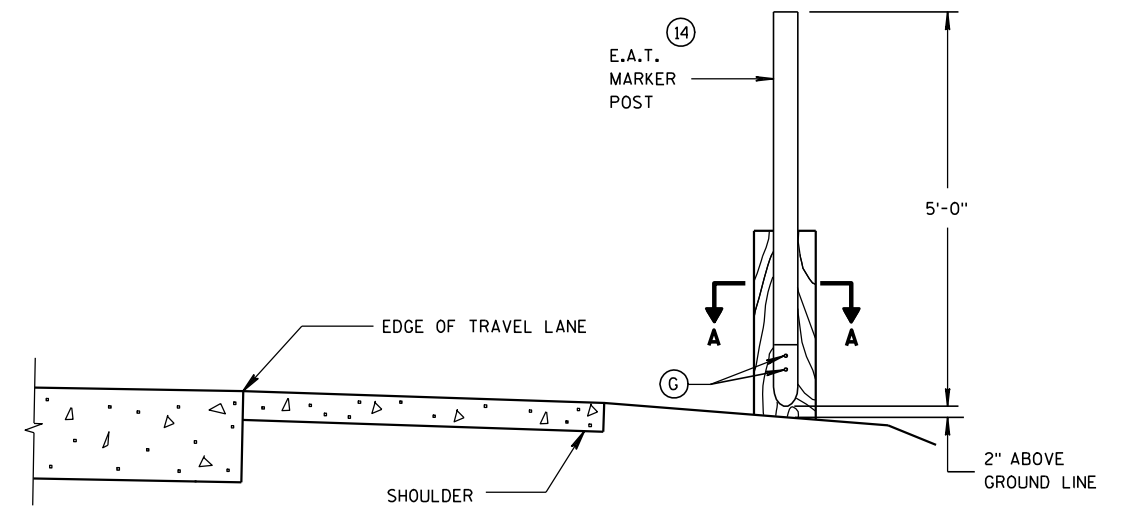
GENERIC REFLECTIVE SHEETING ⑬ ④



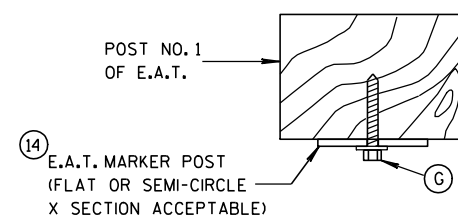
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)

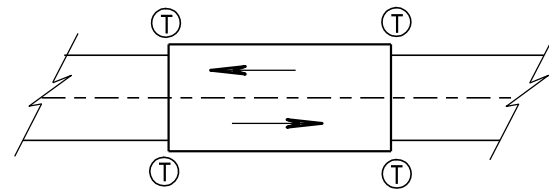


SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

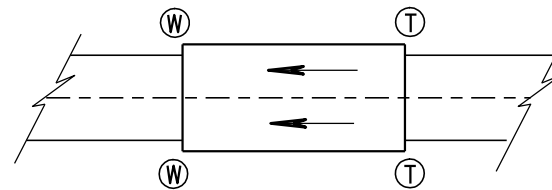
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 DATE /S/ Jerry H. 3000
DATE ROADWAY STANDARDS 173
FHWA ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

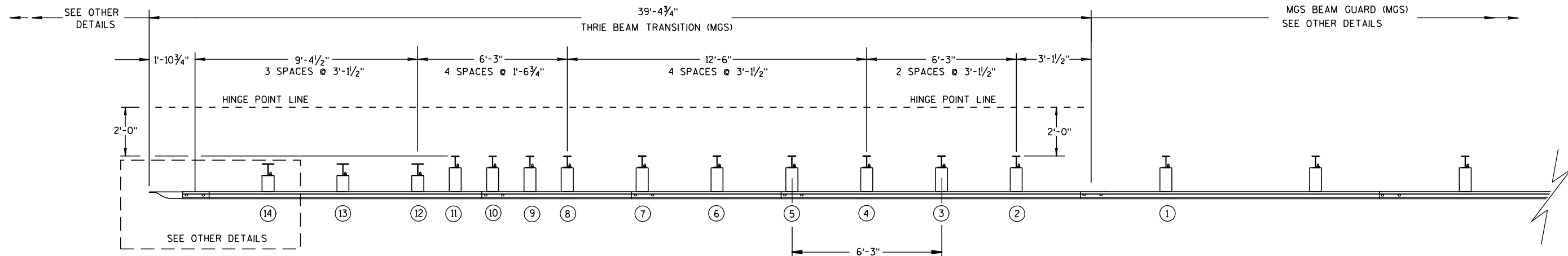
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

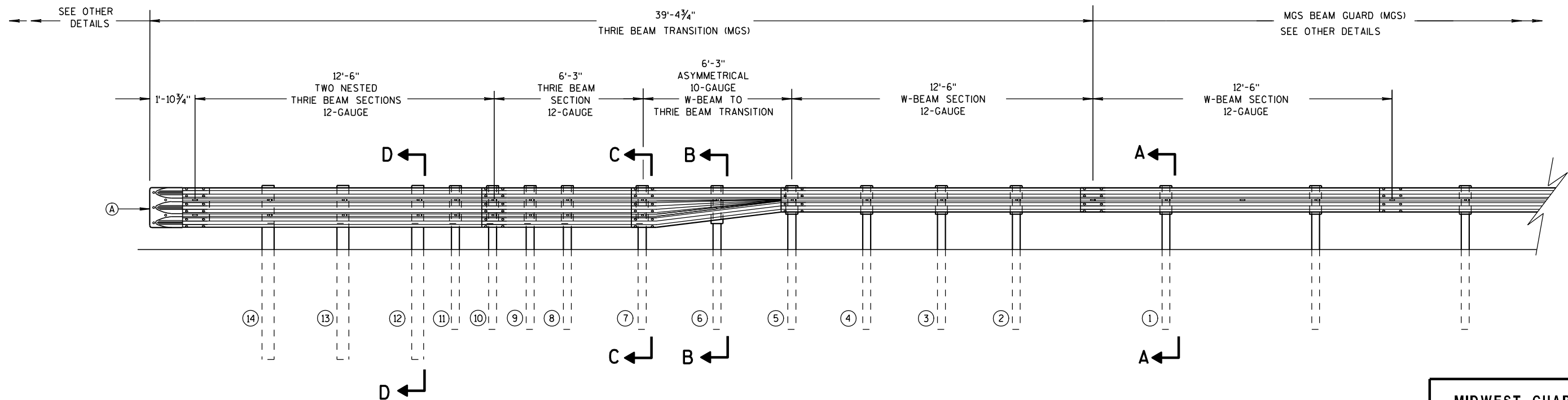
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
174

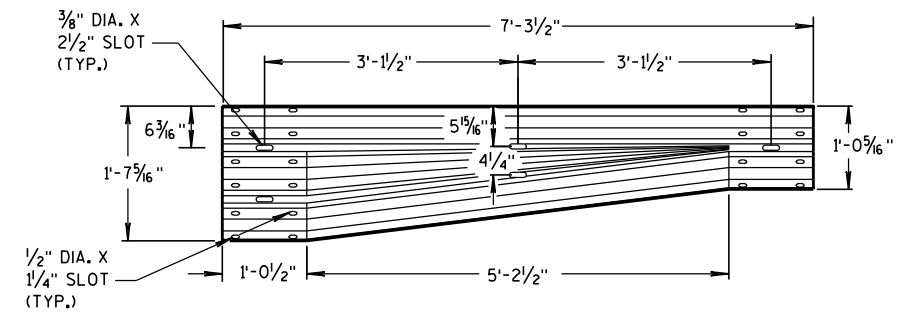
6

S.D.D. 14 B 45-3b

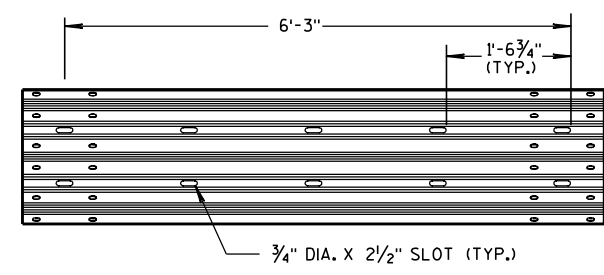


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 175

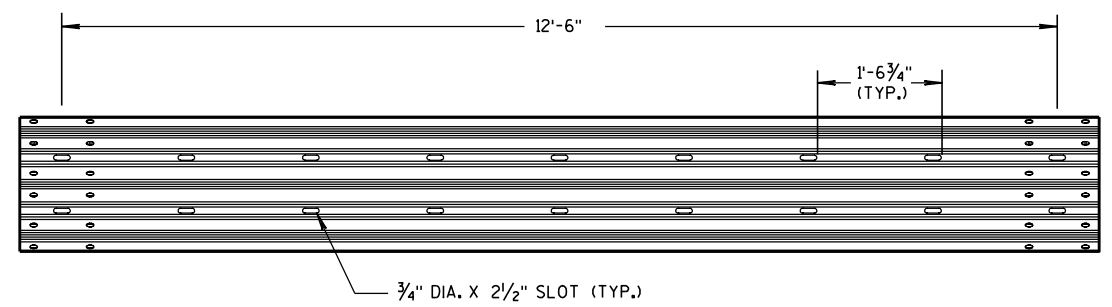
S.D.D. 14 B 45-3b



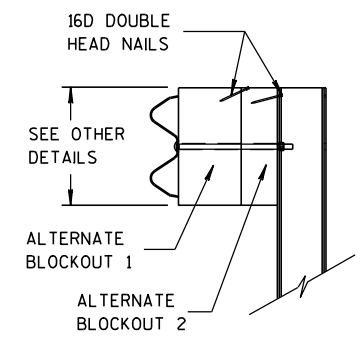
W-BEAM TO THRIE BEAM TRANSITION SECTION



6'-3" THRIE BEAM SECTION

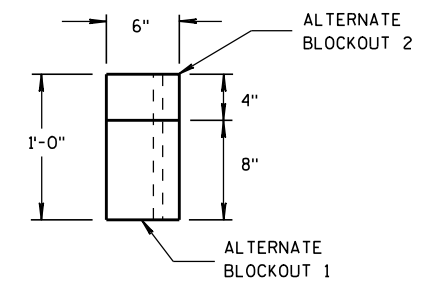


12'-6" THRIE BEAM SECTION

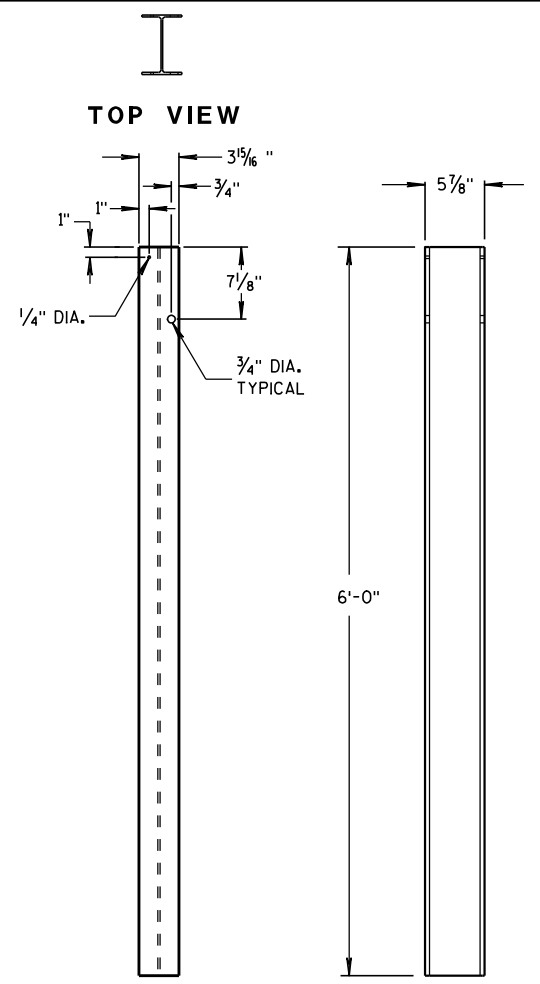


SIDE VIEW

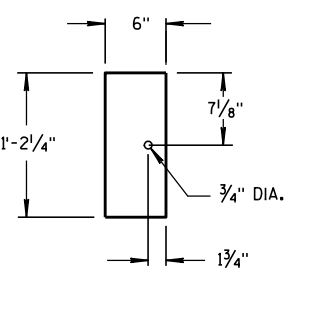
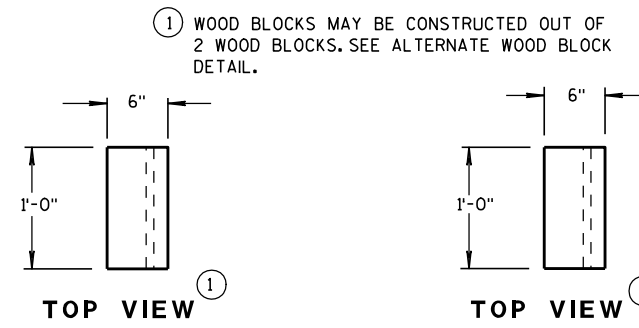
ALTERNATE WOOD BLOCKOUT DETAIL



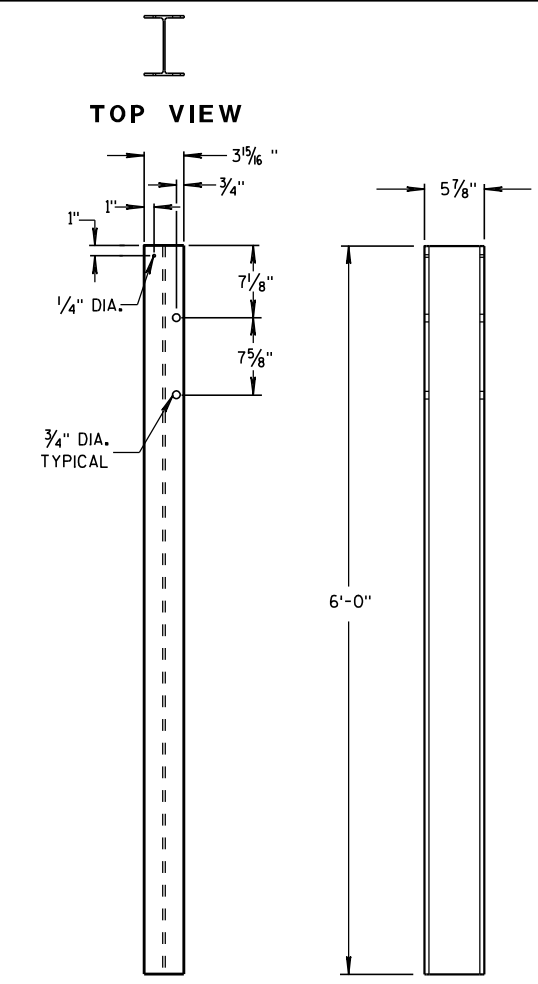
TOP VIEW



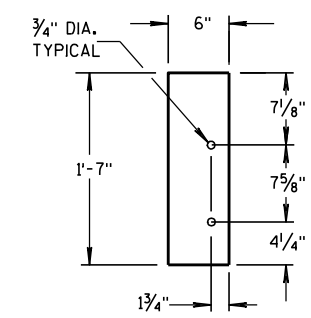
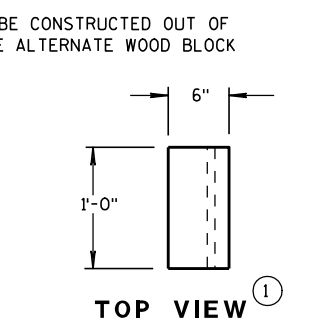
STEEL POSTS 1-5



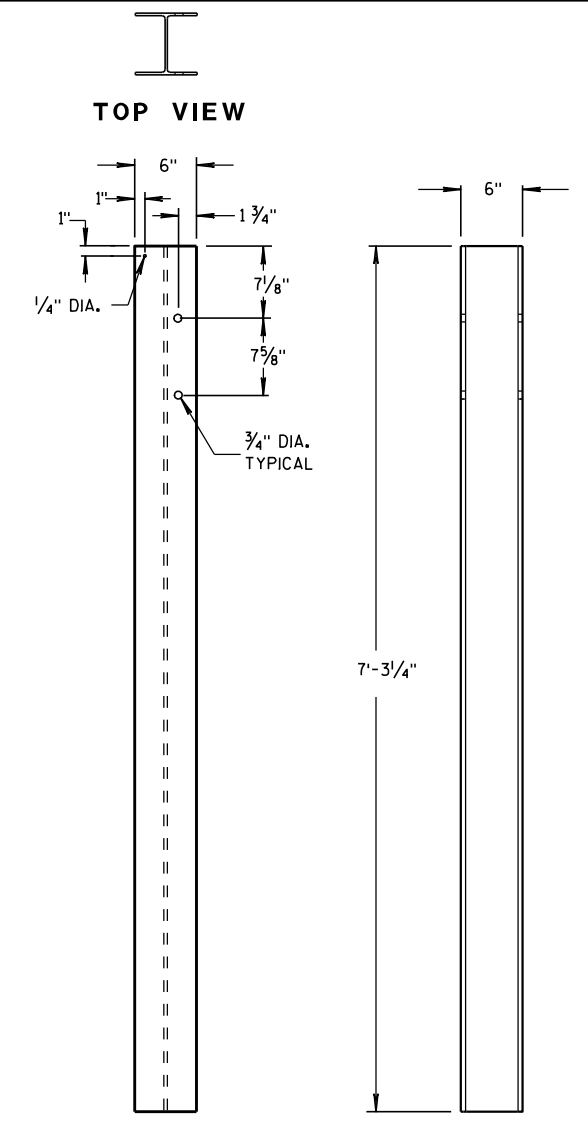
BLOCKOUT POSTS 1-5



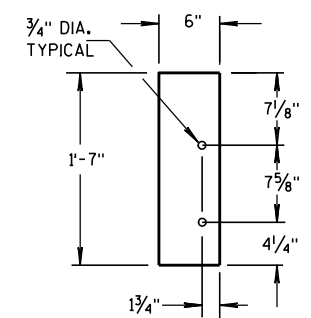
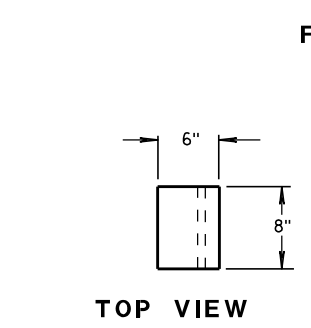
STEEL POSTS 6-11



BLOCKOUT POSTS 6-11



STEEL POSTS 12-14

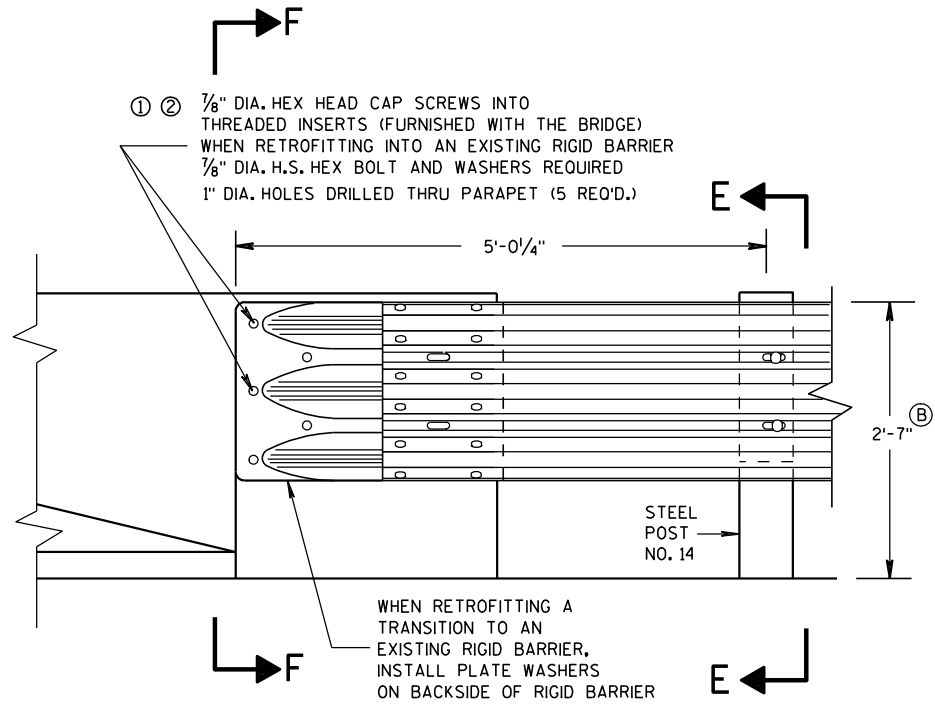


BLOCKOUT POSTS 12-14

STEEL POST SIZES

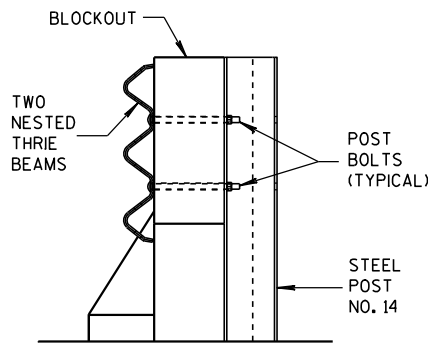
POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)



FRONT VIEW

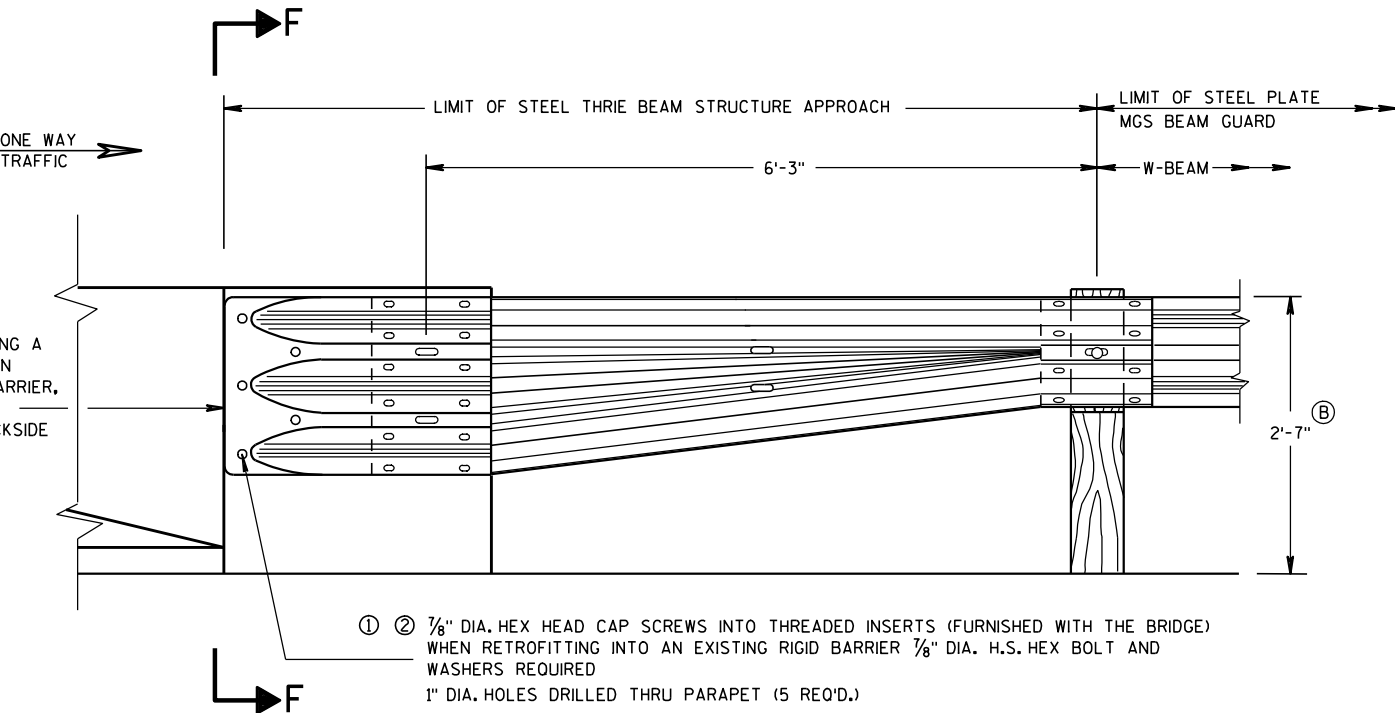
THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS



SECTION E-E

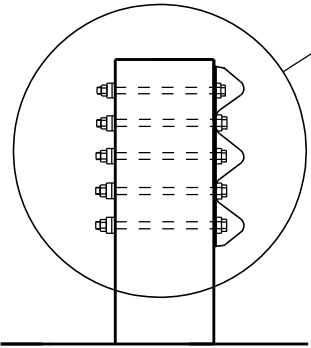
GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
 - ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS, BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
 - ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

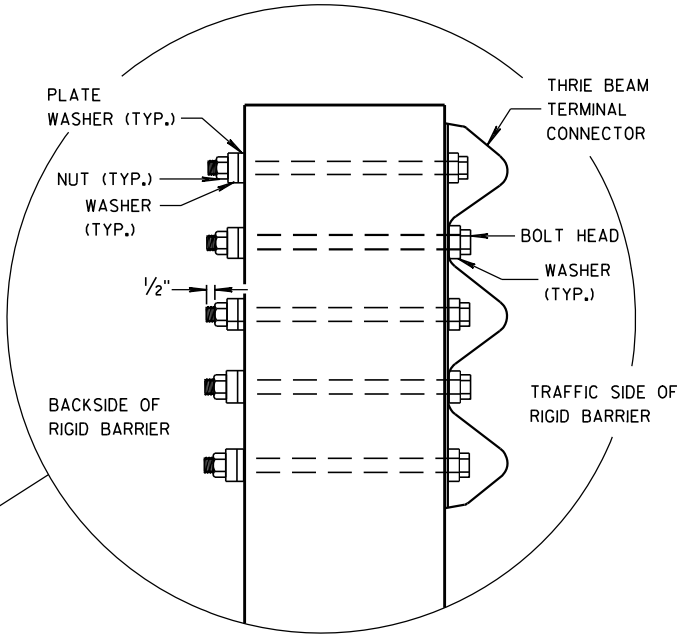


FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO
BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION F-F

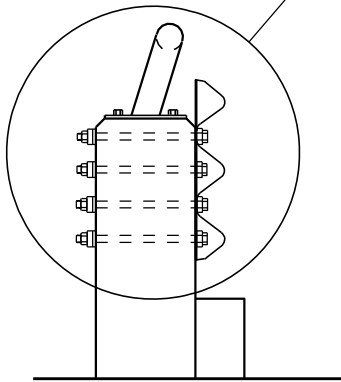
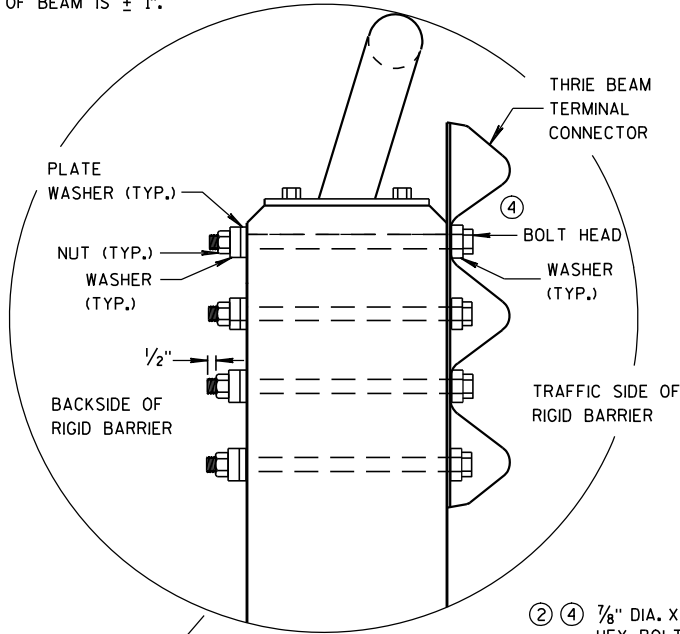


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/31/2012 DATE	/S/ Jerry H. Zapp ROADWAY STANDARDS ENGINEER 177 ENT
FHWA	

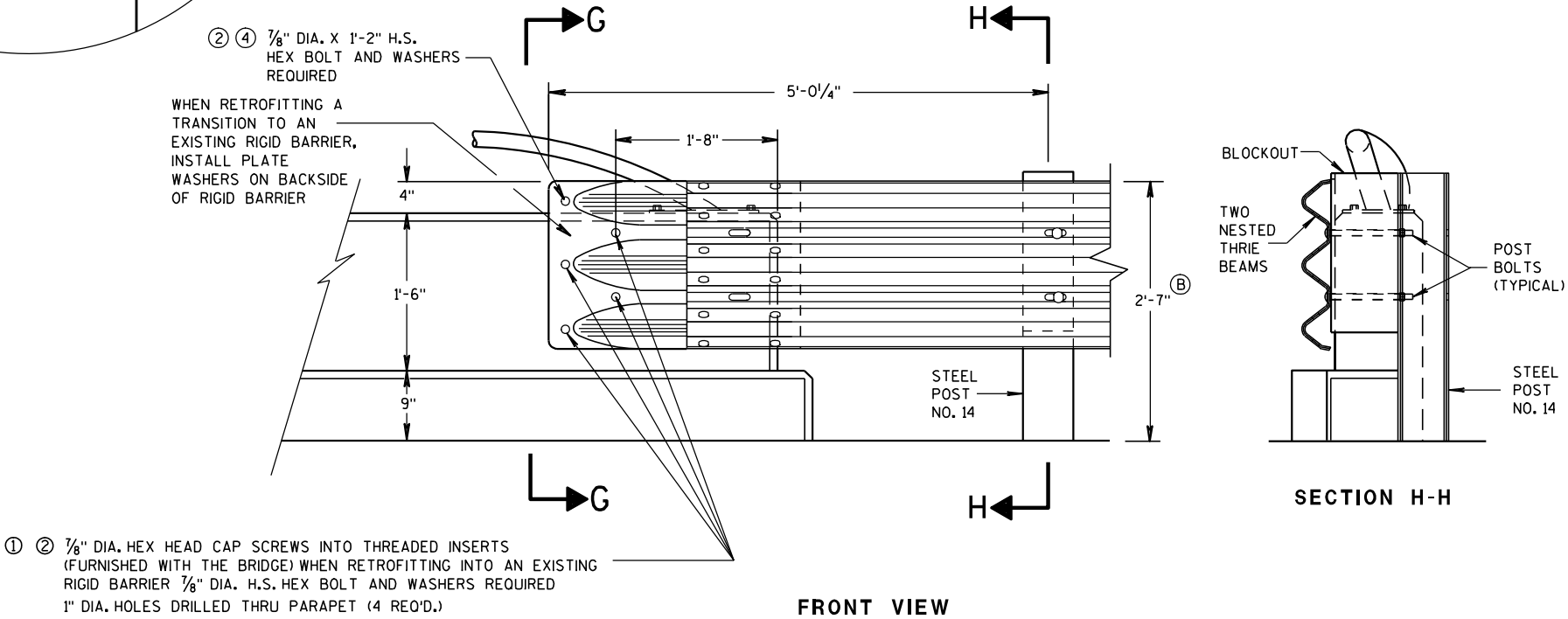
GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X $\frac{5}{8}$ " THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 $\frac{1}{2}$ ". BLOCK IS INCIDENTAL TO THE CONTRACT.
- ④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.
- Ⓑ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

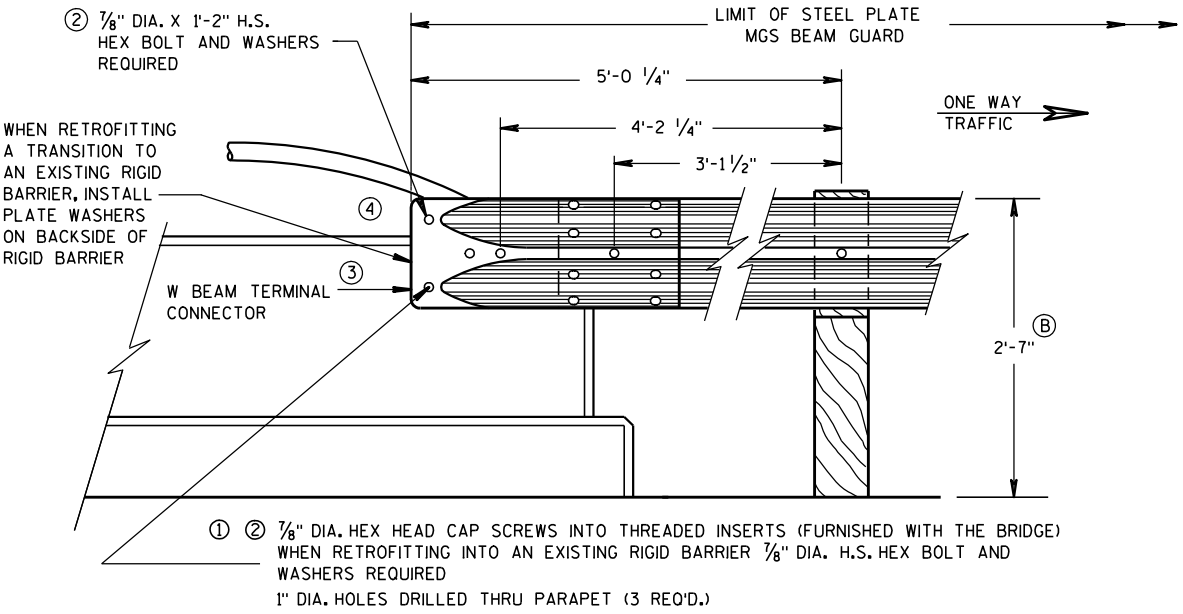


SECTION G-G



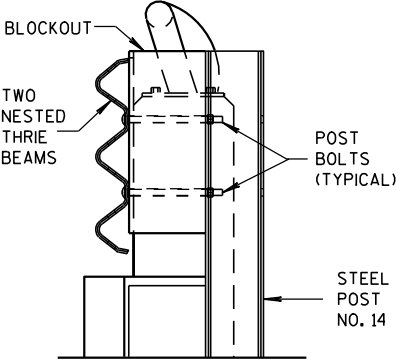
FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

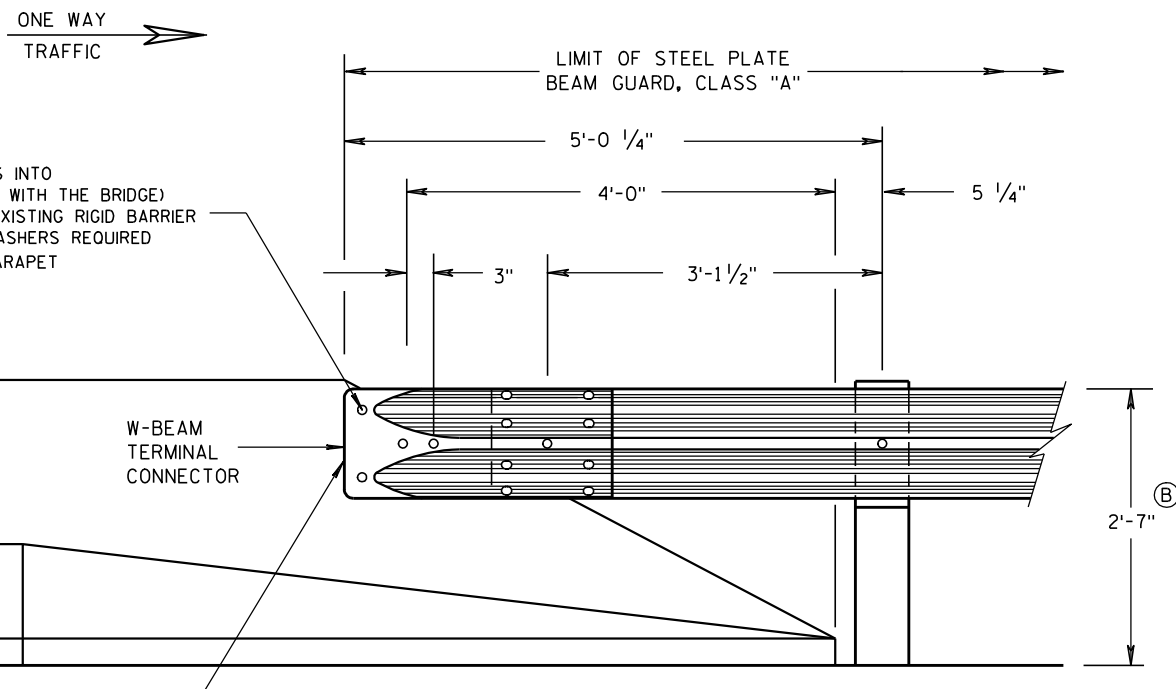


SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS 178 ENT
ENGINEER
FHWA



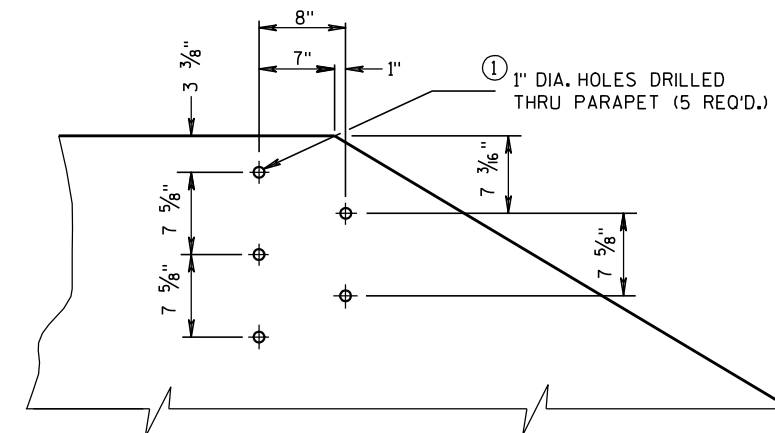
FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

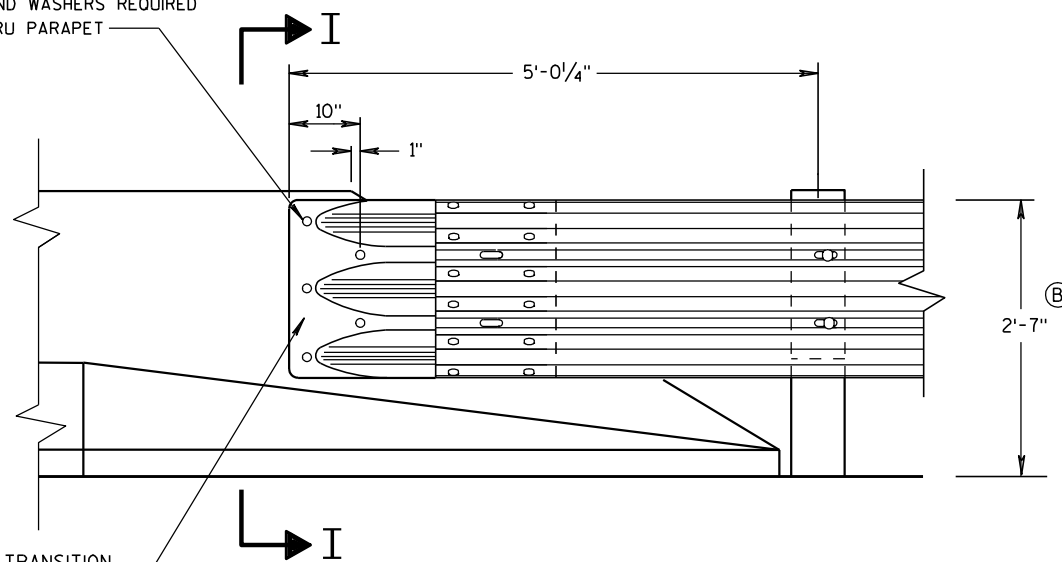
GENERAL NOTES

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.



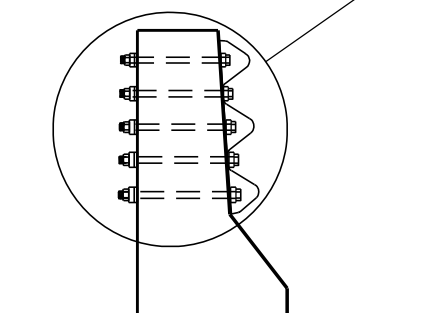
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION

- ① ② 1/8" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER. 7/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED. 1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.).

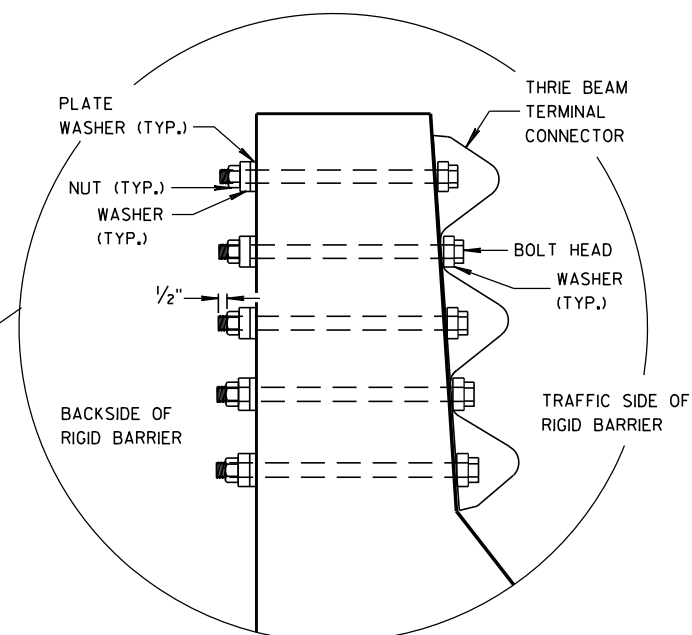


FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS



SECTION I-I

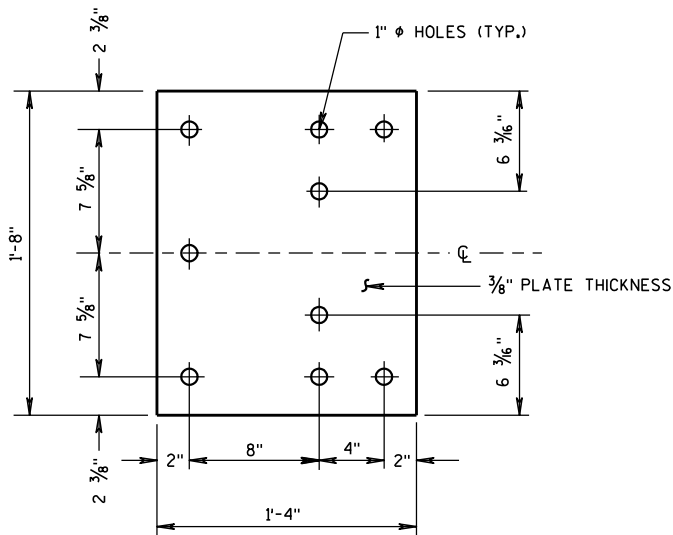


MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

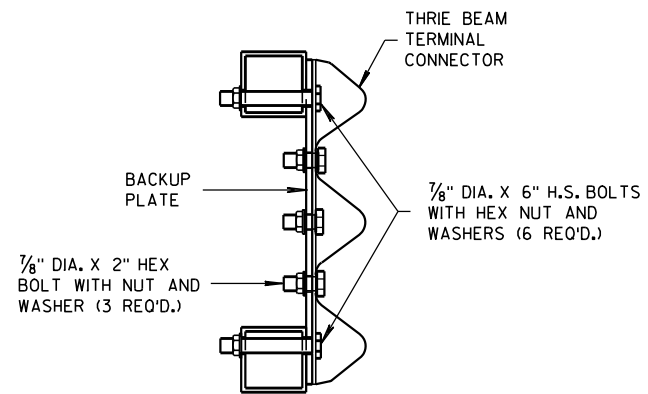
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
FHWA

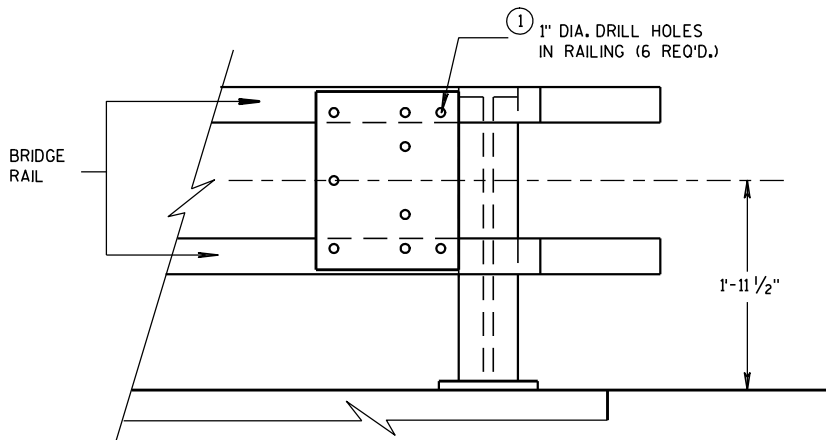
/S/ Jerry H. Zogg
ROADWAY STANDARDS 179 ENT
ENGINEER



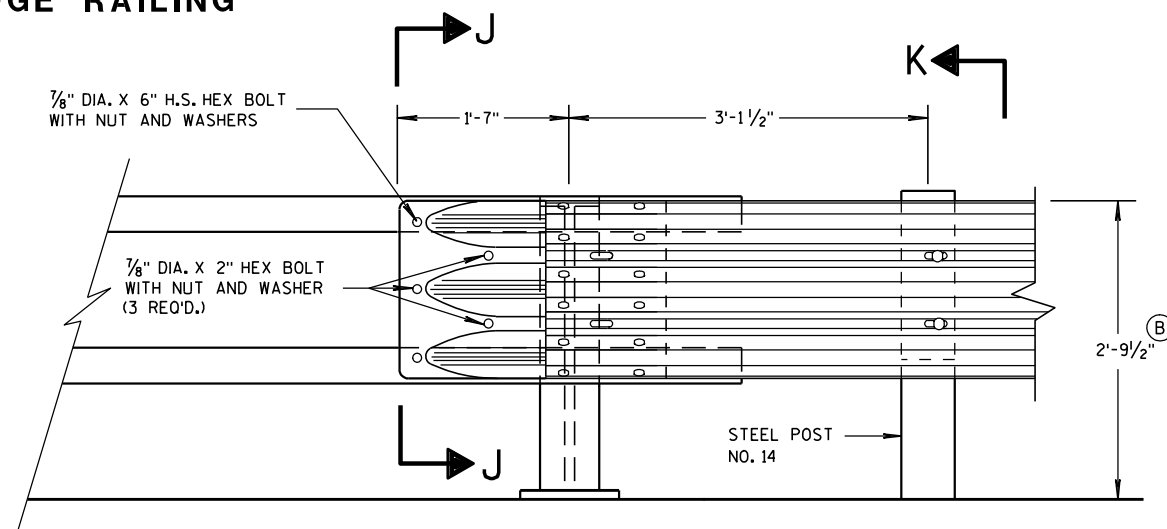
BACK-UP PLATE DETAIL



SECTION J-J

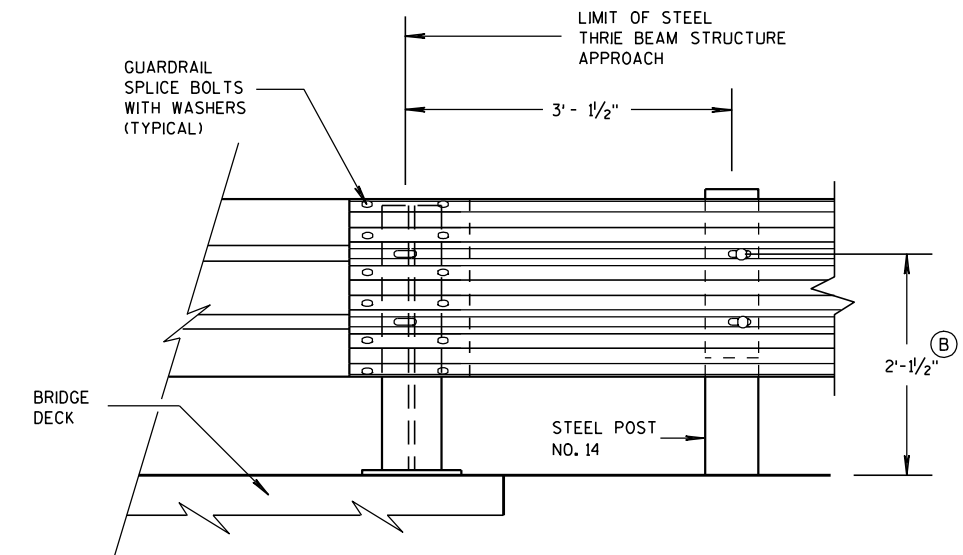


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



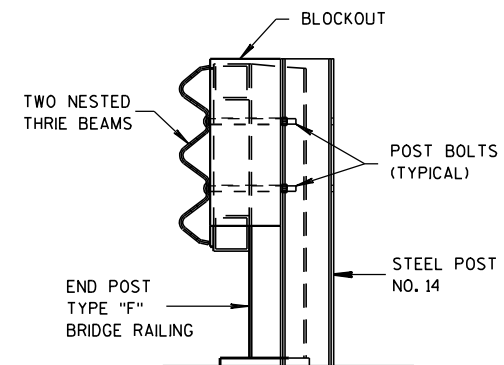
FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



SECTION K-K

GENERAL NOTES

- ① DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

DATE

FHWA

/S/ Jerry H. Zeng

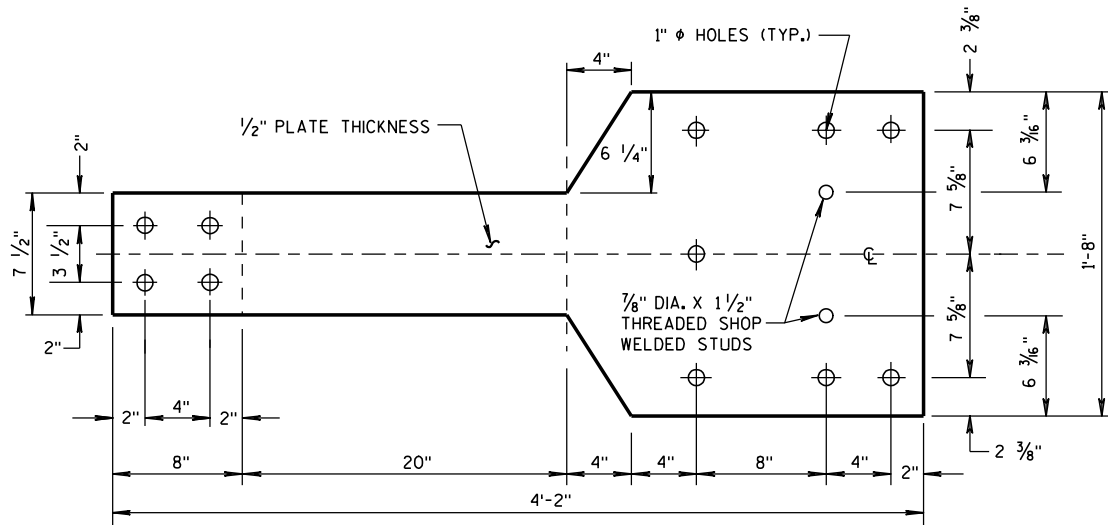
ROADWAY STANDARDS

ENGINEER

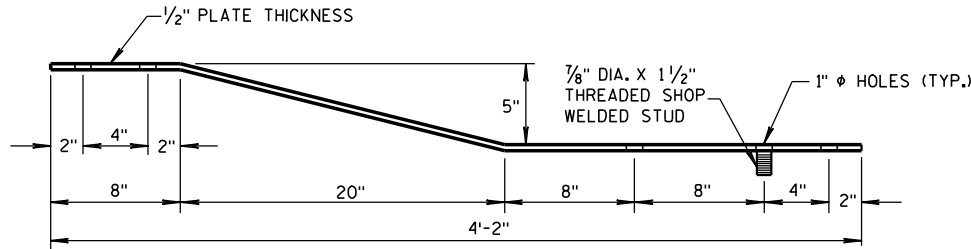
ENT

GENERAL NOTES

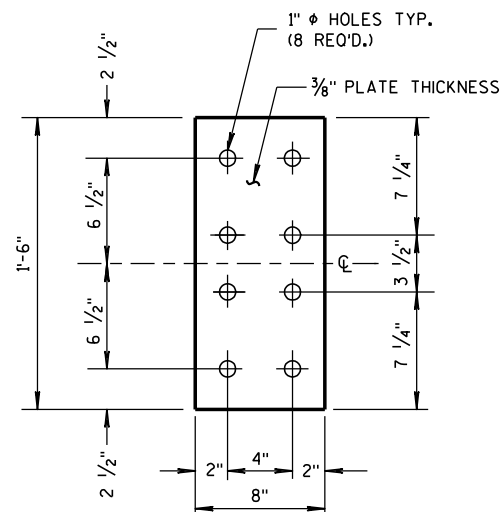
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



FRONT VIEW

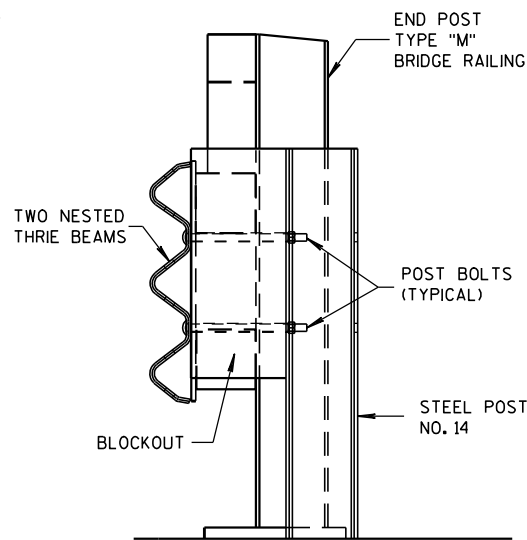


PLAN VIEW
BACK-UP PLATE DETAIL, TYPE "M"

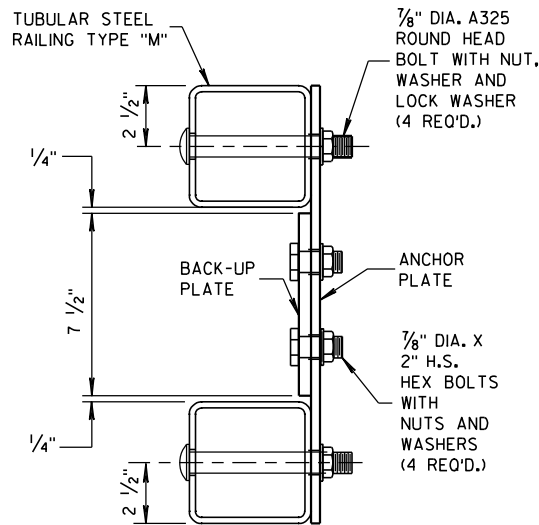


FRONT VIEW

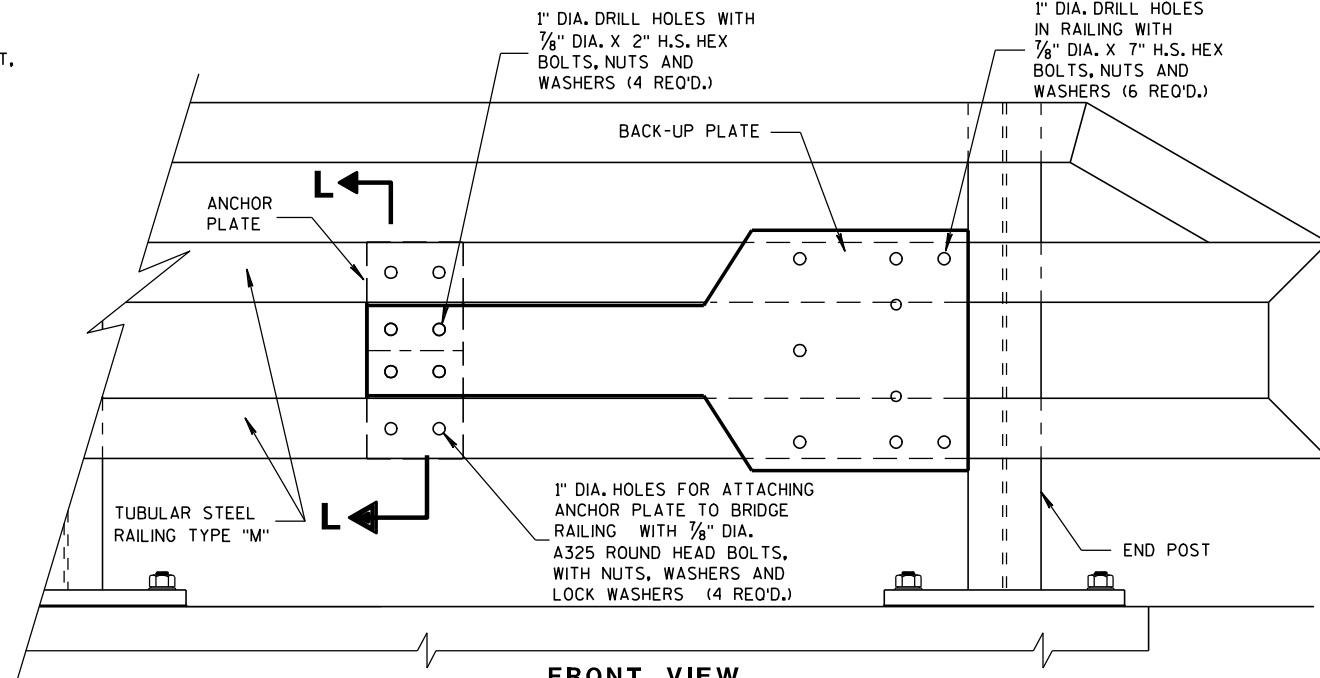
ANCHOR
PLATE DETAIL,
TYPE "M"



SECTION M-M

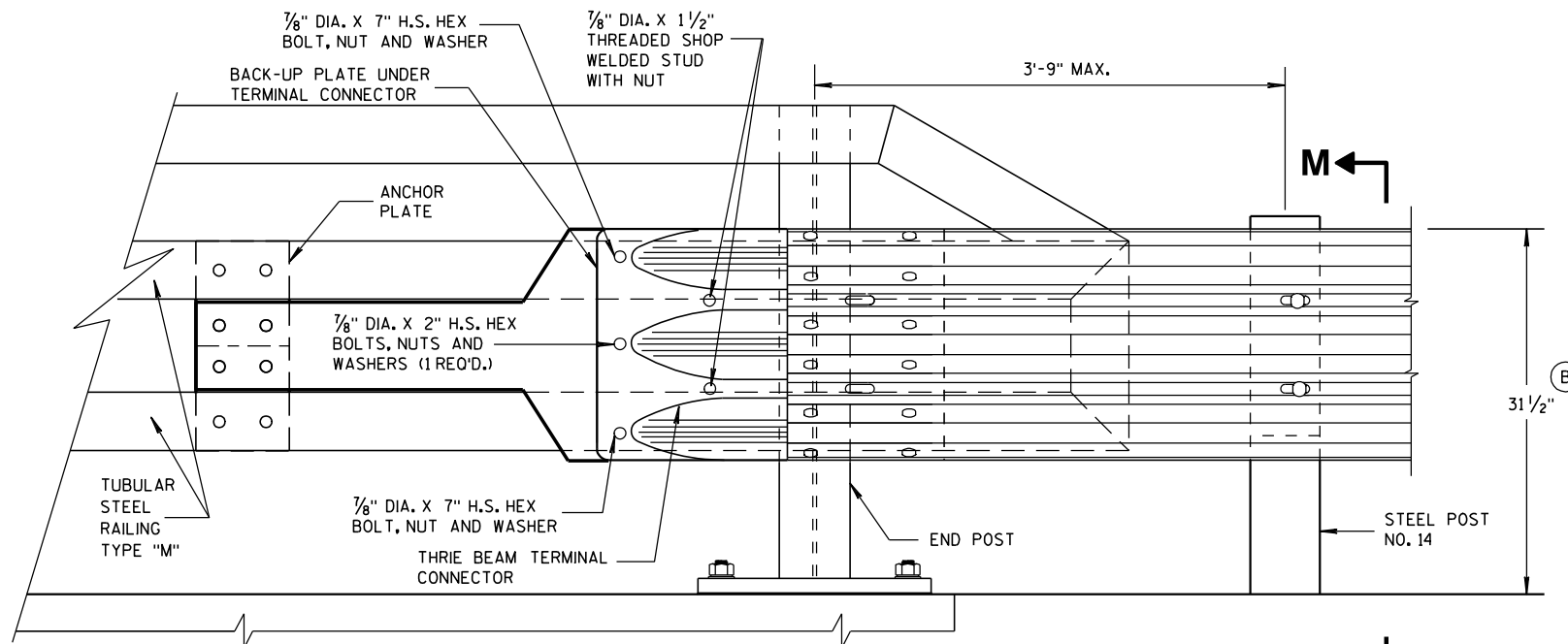


SECTION L-L

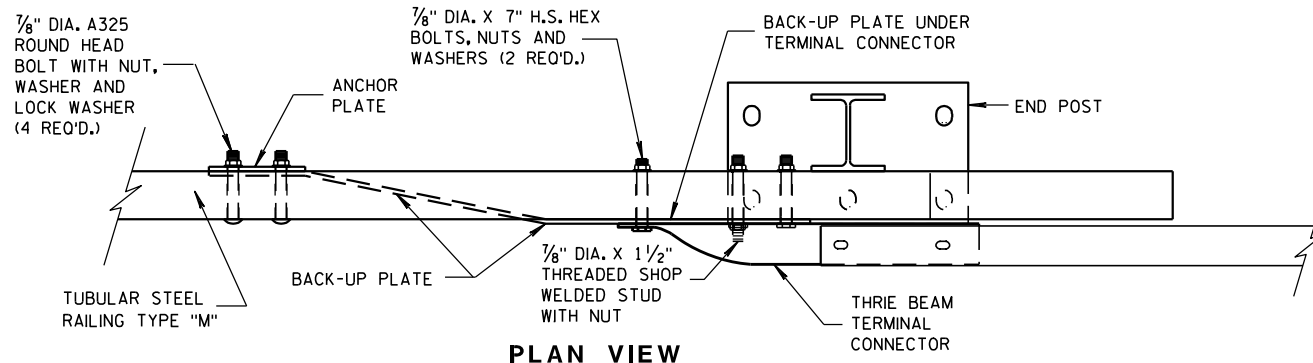


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



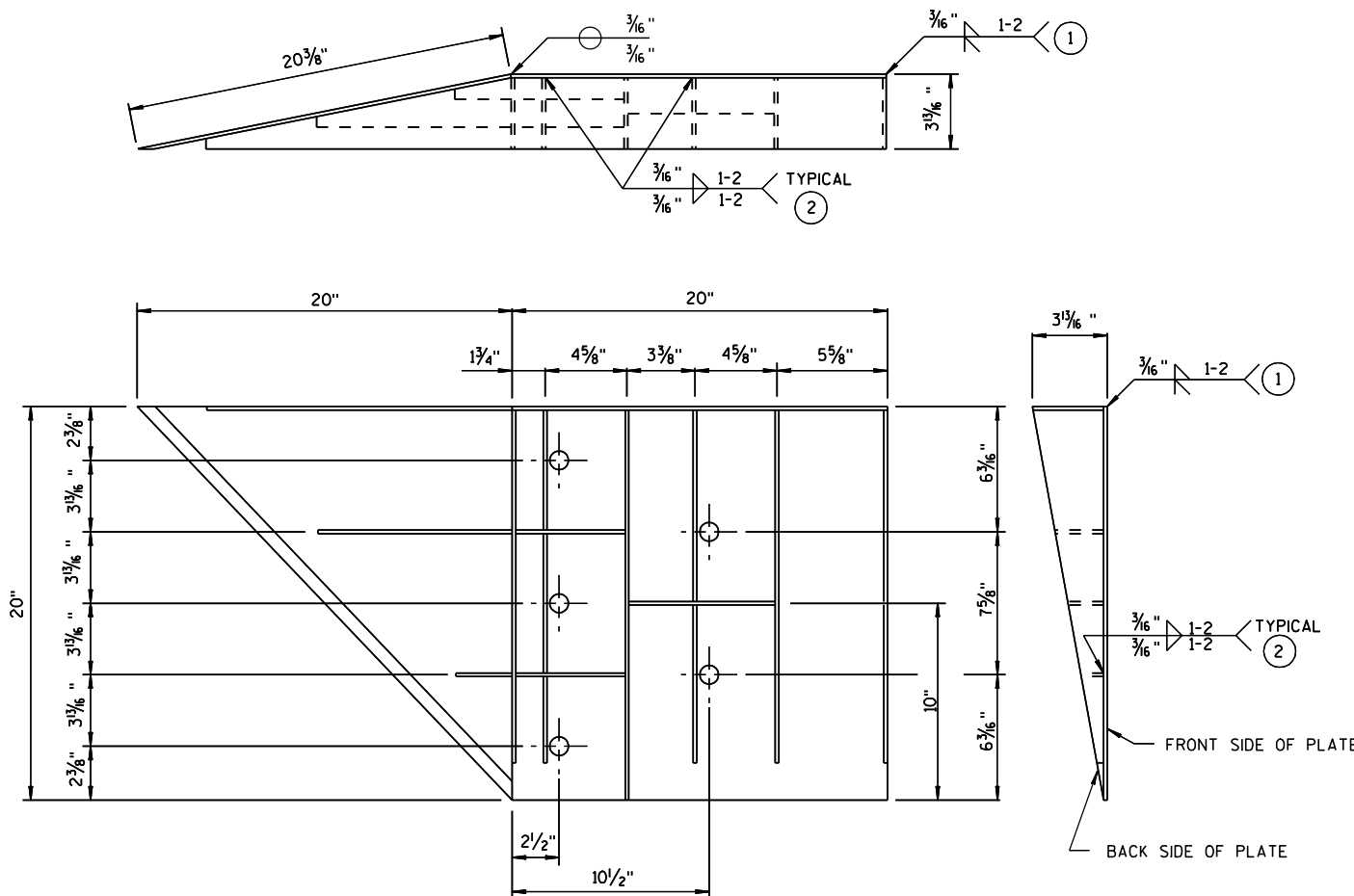
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE /S/ Jerry H. Zapp ROADWAY STANDARDS 181 ENT
FHWA ENGINEER

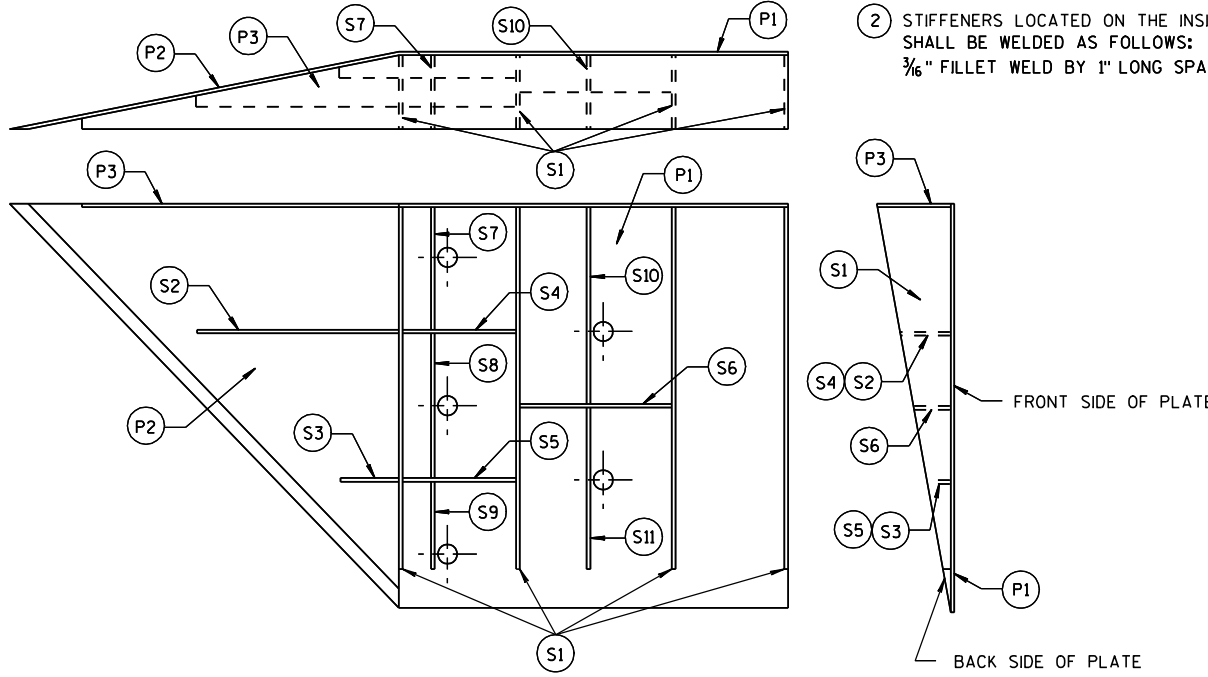


WELDING INSTRUCTION
(VIEWED FROM BACK SIDE OF PLATE)

SINGLE SLOPE CONNECTION PLATE

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 5/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 1/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 7/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 1/16"	1/4"

PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)



GENERAL NOTES

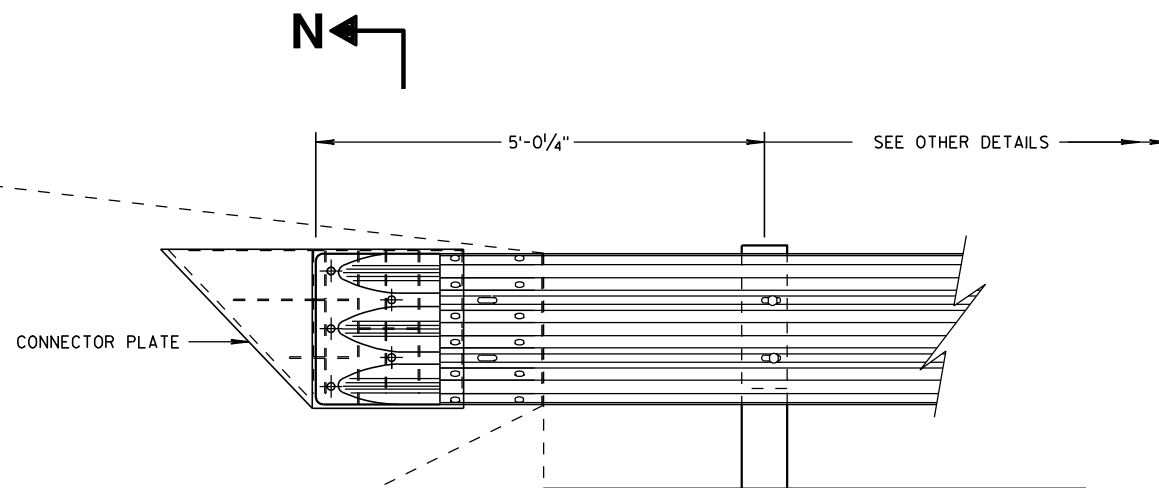
- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- 1 STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- 2 STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

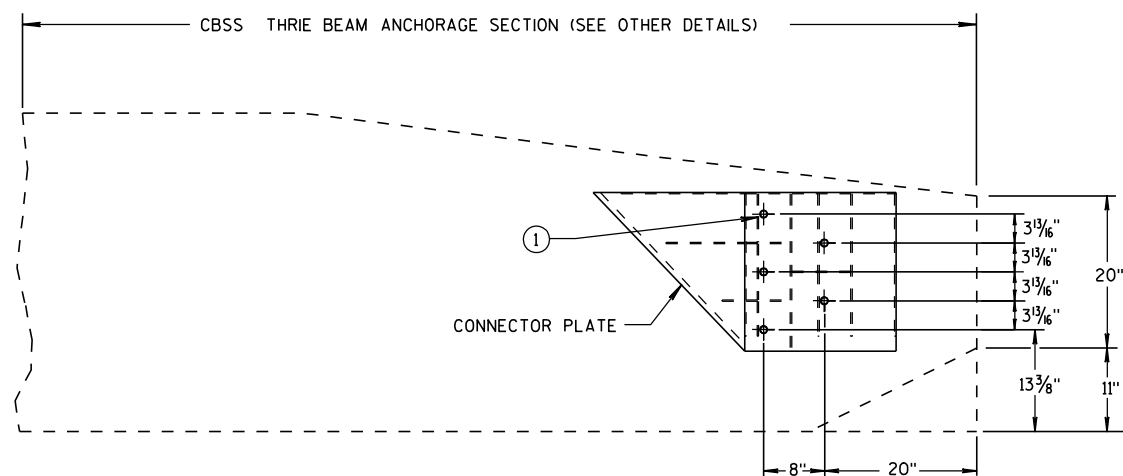
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE /S/ Jerry H. 182 JENT
FHWA ROADWAY STANDARDS ENGINEER



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

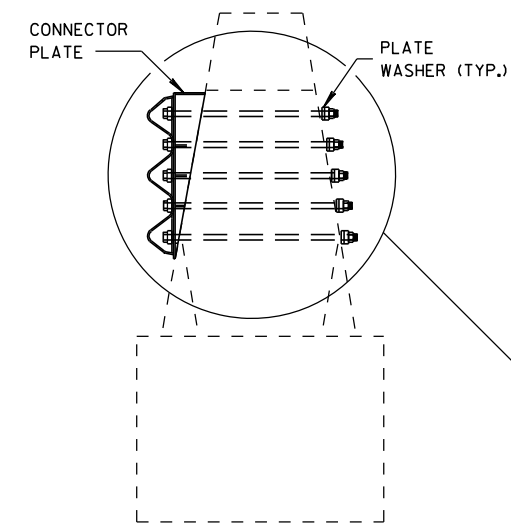


SINGLE SLOPE CONNECTION PLATE PLACEMENT

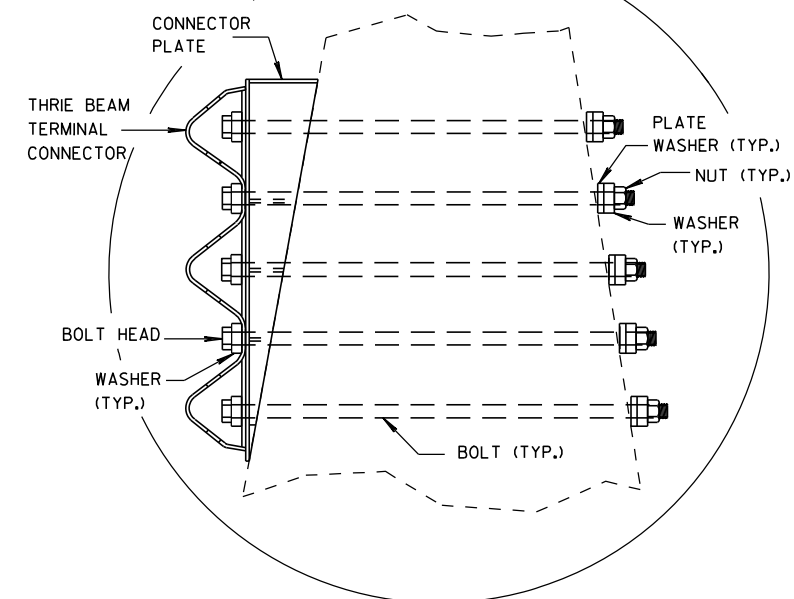
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- ① BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

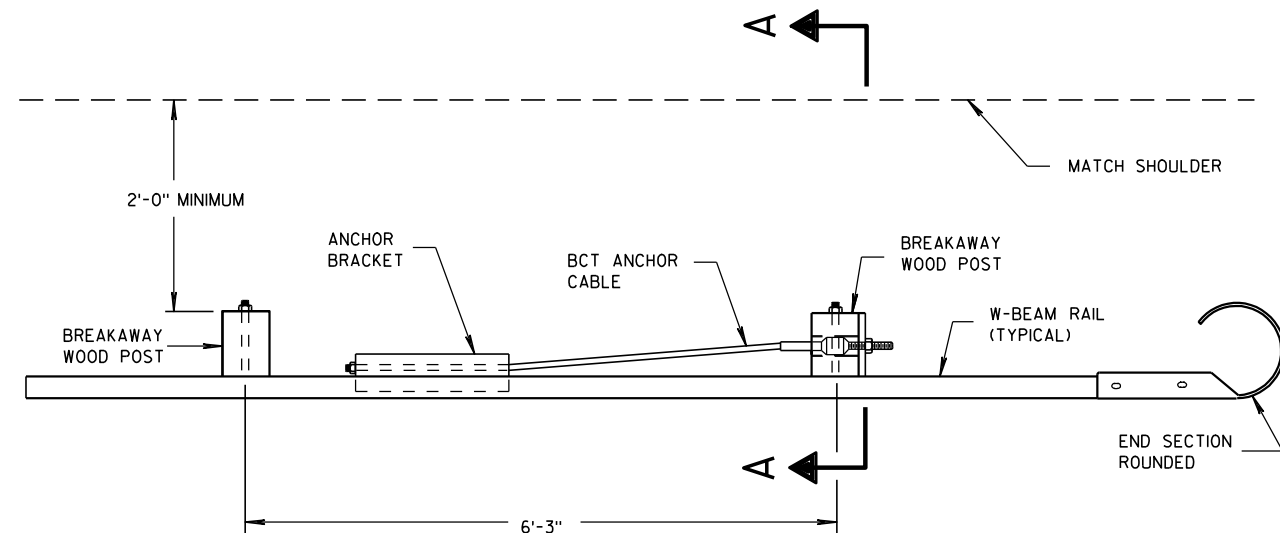
DATE

FHWA

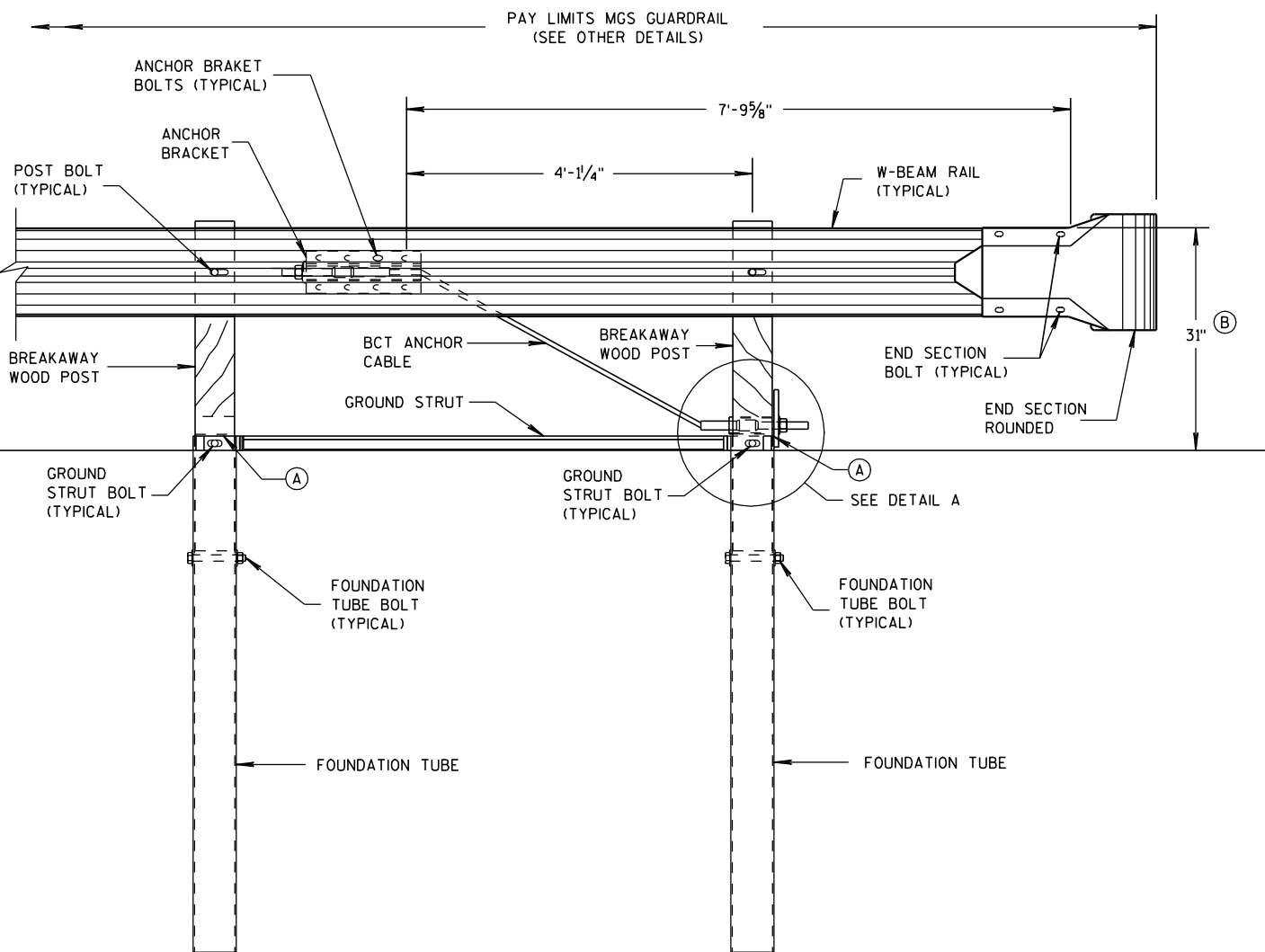
/S/ Jerry H. 7000

ROADWAY STANDARDS 183

ENGINEER

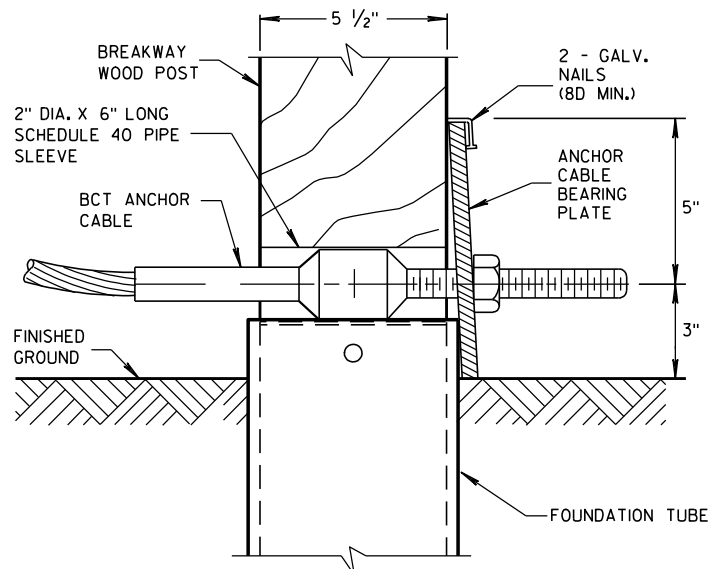


PLAN VIEW



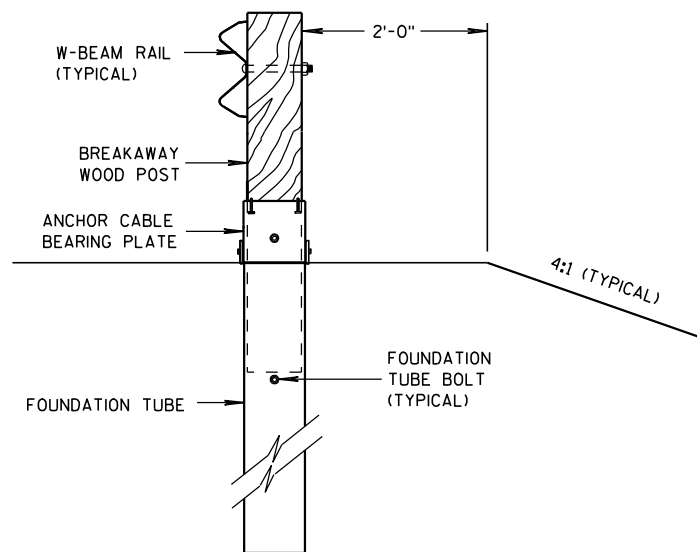
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUND STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A 5/8" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND 5/8" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A 7/8" DIAMETER X 7 1/2" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A 7/8" DIAMETER DH HEAVY HEX NUT AND A 5/8" DIAMETER FLAT WASHER.

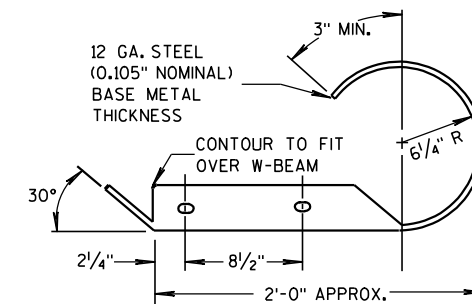
GROUND STRUT BOLTS ARE A 5/8" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A 5/8" DIAMETER DH HEAVY HEX NUT AND A 5/8" DIAMETER FLAT WASHER.

ANCHOR BRACKET BOLTS ARE A 5/8" DIAMETER X 1 1/2" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRACKET BOLT REQUIRES A 5/8" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

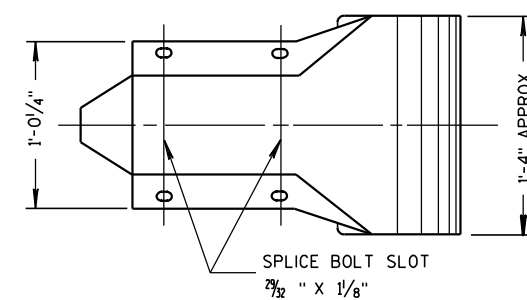
END SECTION BOLTS ARE A 5/8" DIAMETER X 1 1/2" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES 5/8" DIAMETER DH HEAVY HEX NUT AND A 5/8" DIAMETER FLAT WASHER.

W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

- (A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.
- (B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1". FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27 3/4" TO 32" ± 1".



PLAN VIEW

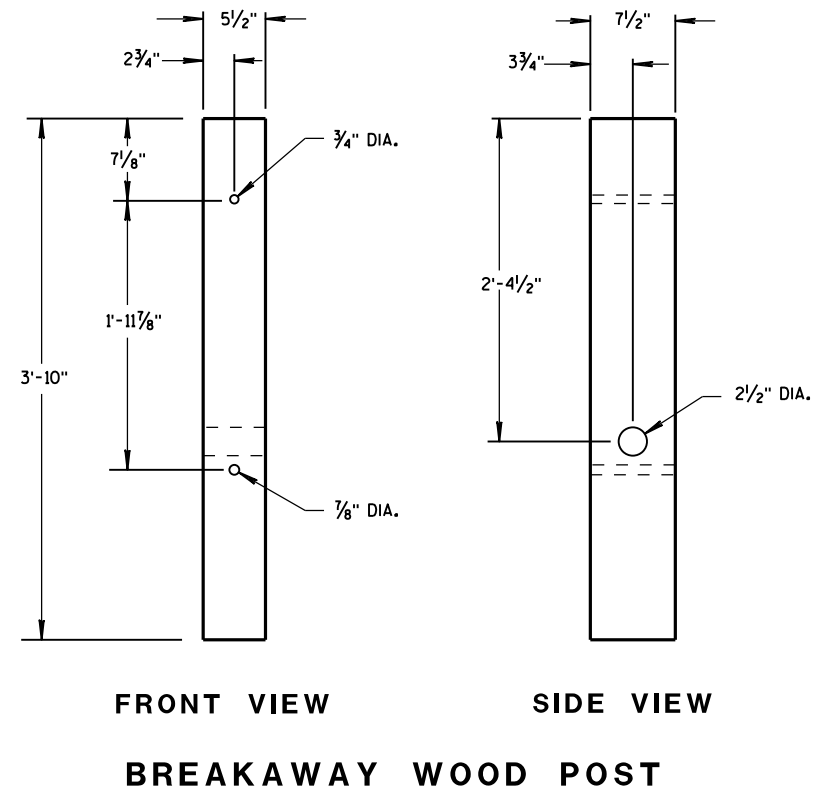
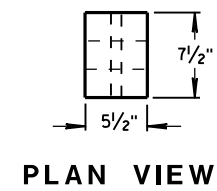
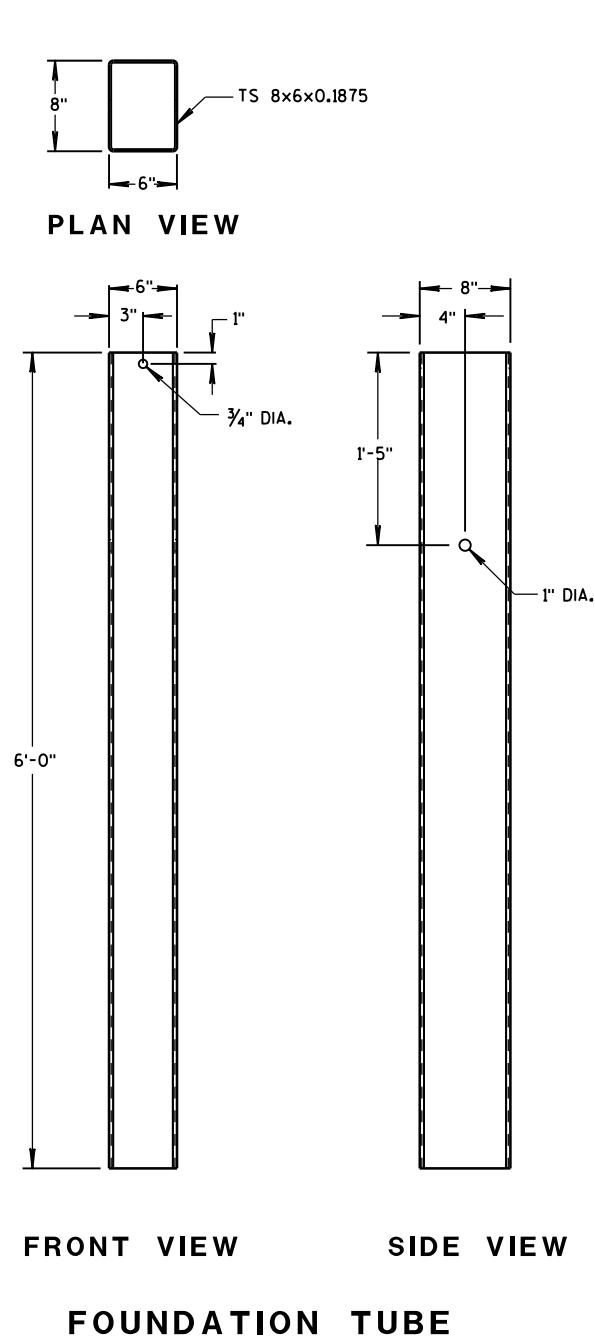


FRONT VIEW

W BEAM END
SECTION ROUNDED

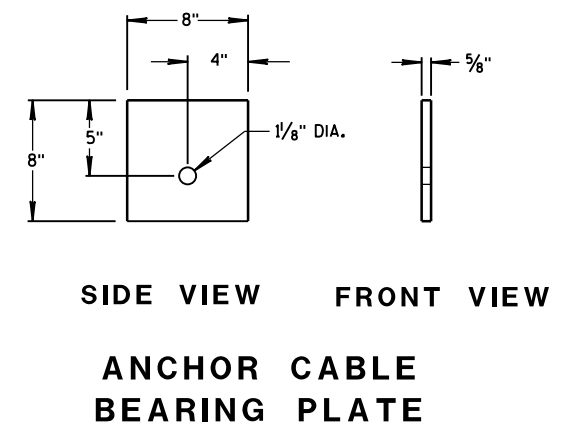
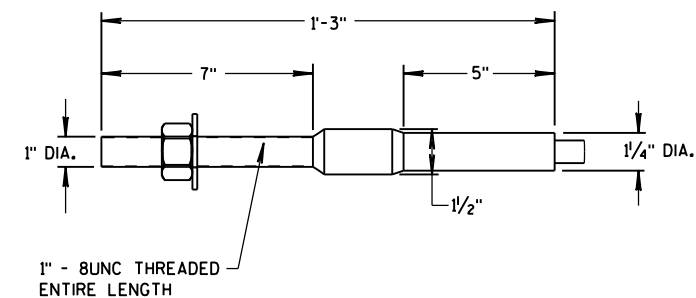
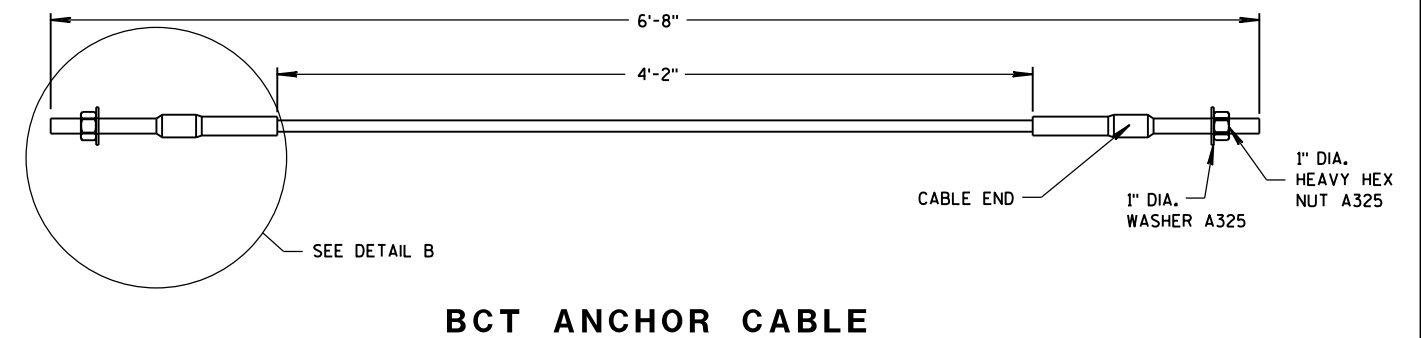
MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



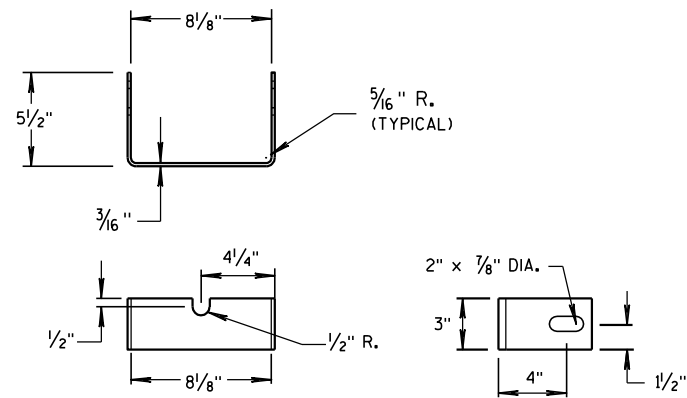
GENERAL NOTES

BCT ANCHOR CABLE IS A 3/8" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

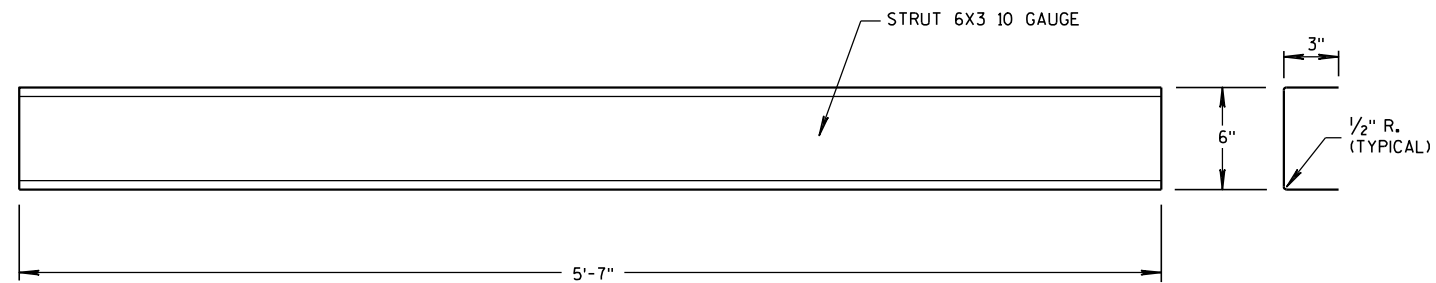


MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

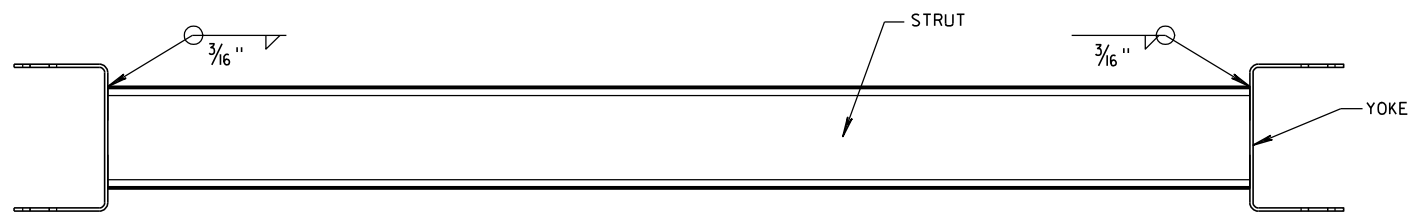
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 185



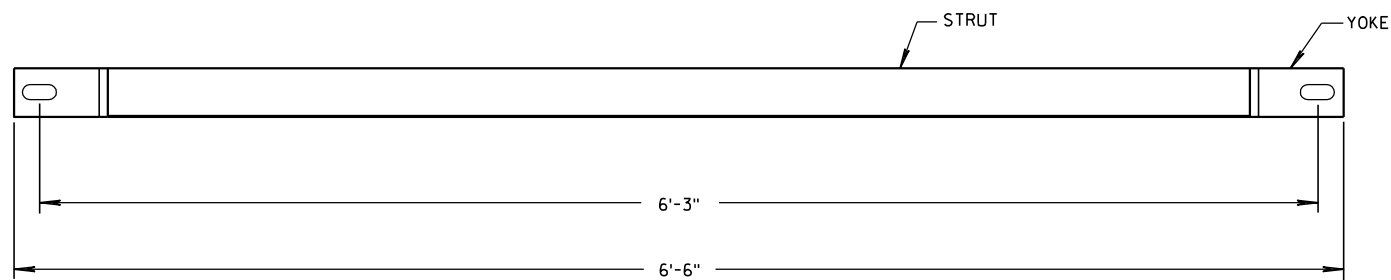
YOKE DETAIL



STRUT DETAIL

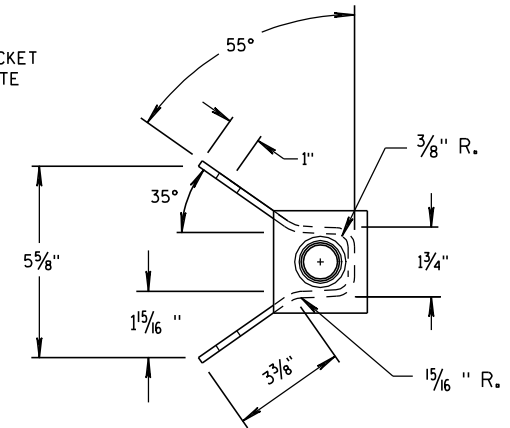
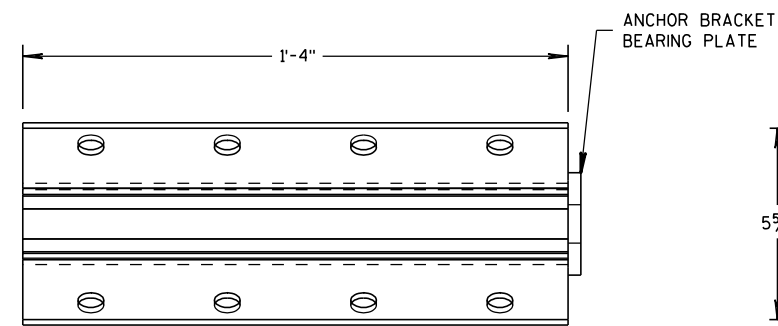
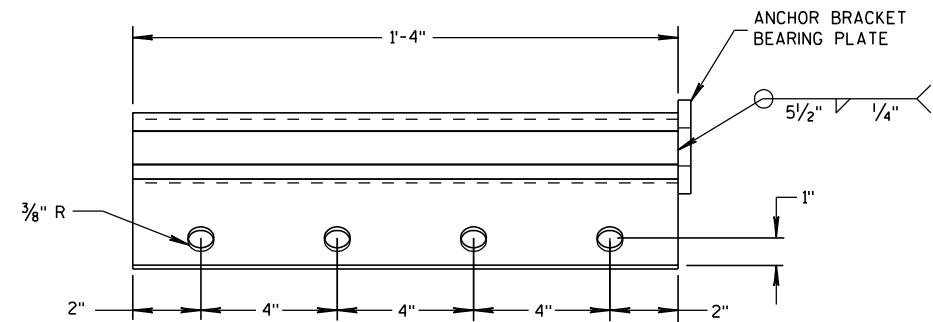


PLAN VIEW

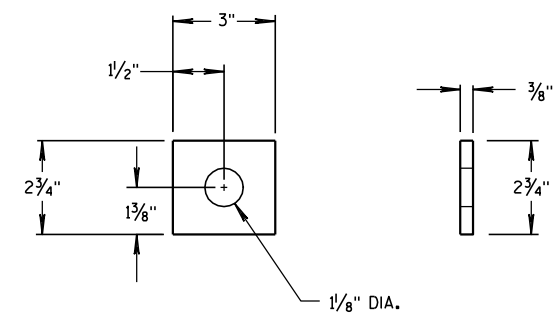


FRONT VIEW

GROUND STRUT DETAIL

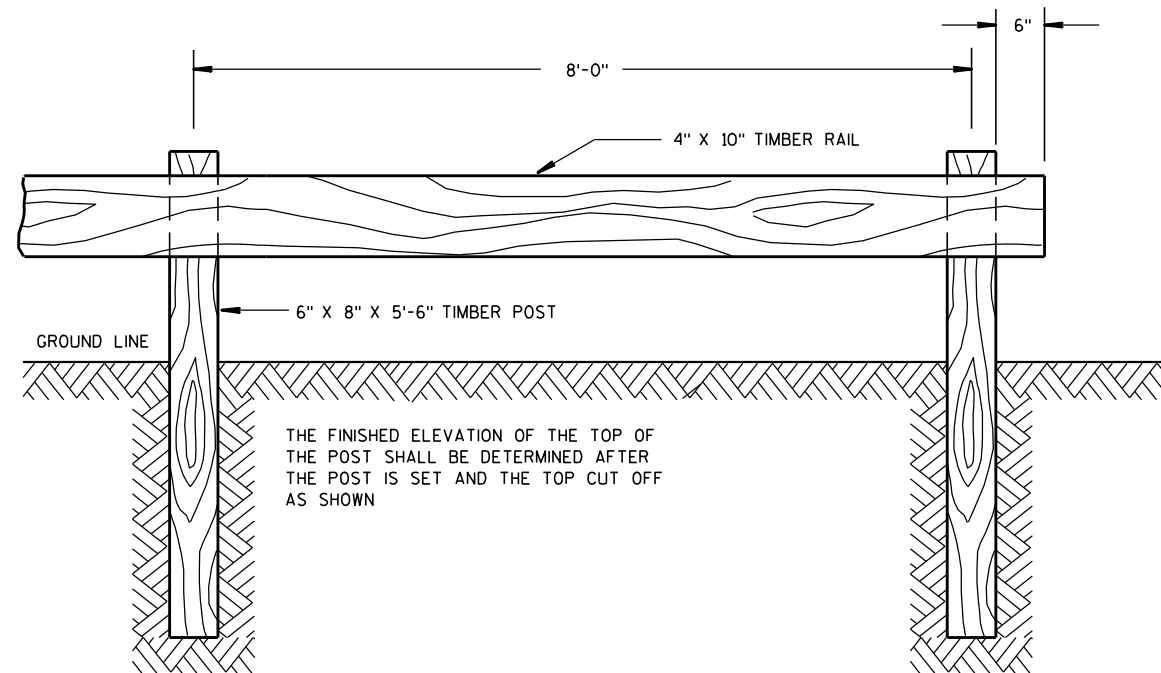


ANCHOR BRACKET

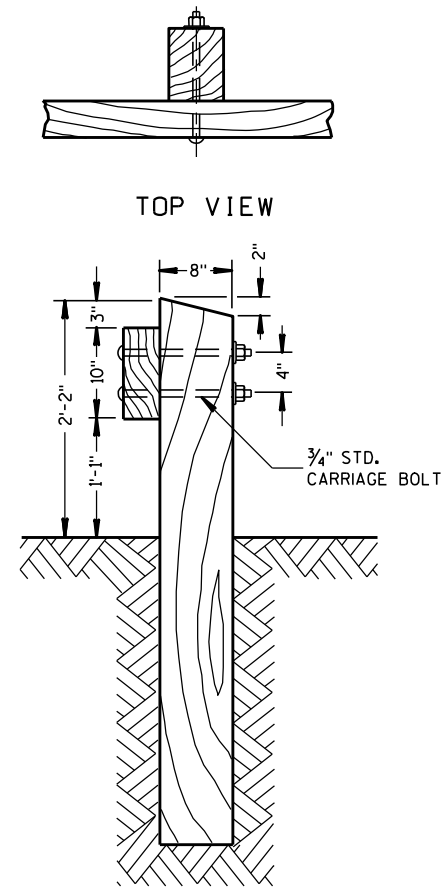


ANCHOR BRACKET BEARING PLATE

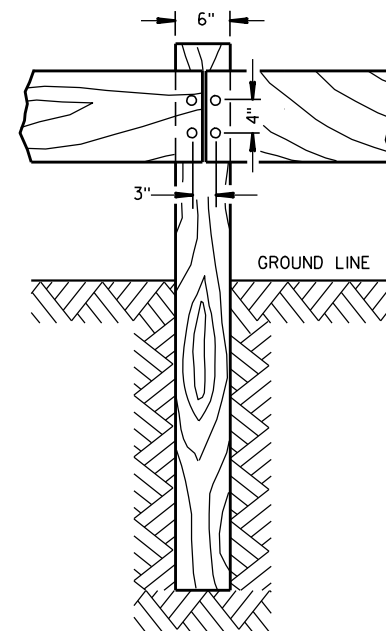
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED	/S/ Jerry H. 7--- DATE ROADWAY STANDARDS 186 TENT		
FHWA	ENGINEER		



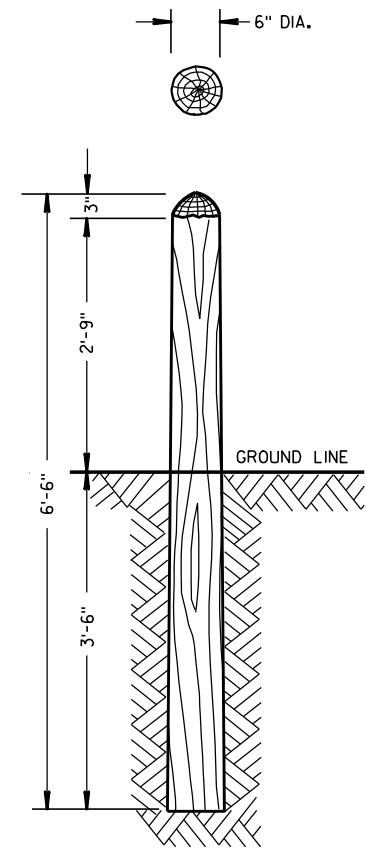
FRONT VIEW



SIDE VIEW

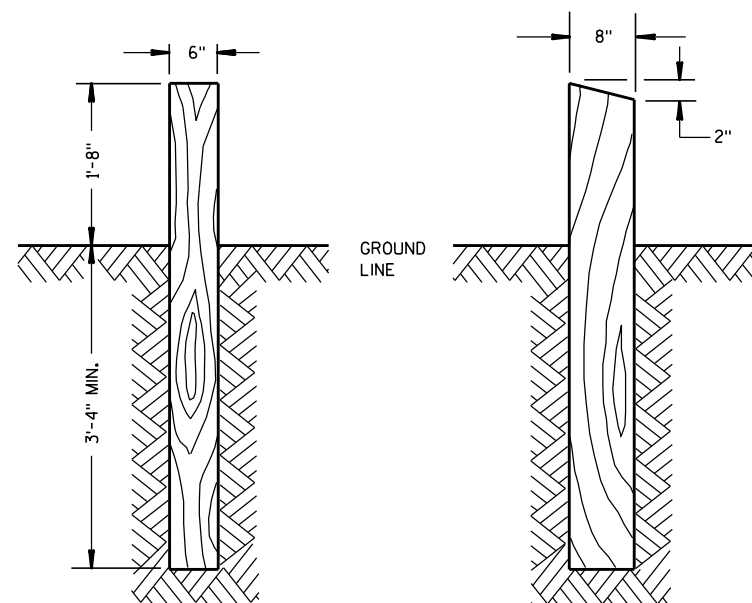


SPLICE POST



RUSTIC MARKER POST

TIMBER RAIL GUARD FENCE (PARKING LOT PROTECTION)

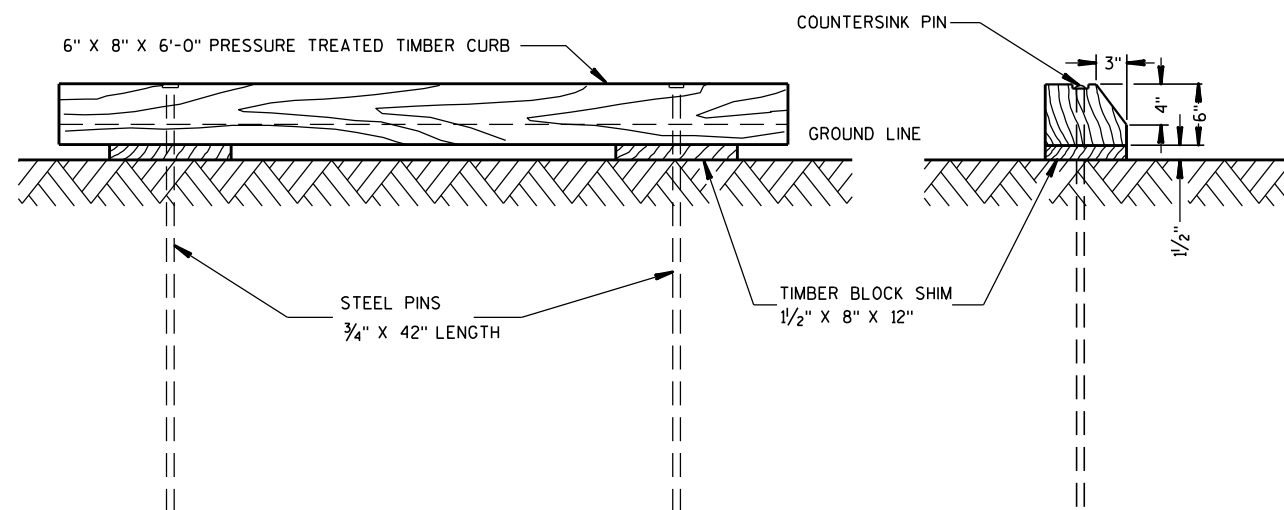


FRONT VIEW

SIDE VIEW

TIMBER GUARD POST

(REQUIREMENTS SHALL BE THE SAME AS POSTS FOR TIMBER RAIL GUARD FENCE)



FRONT VIEW

END VIEW

TREATED TIMBER CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS. ALL POST AND RAIL DIMENSIONS ARE NOMINAL DIMENSIONS.

TIMBER POSTS, RAILS AND MARKER POSTS

THE GALVANIZING OR CADMIUM PLATING OF HARDWARE WILL NOT BE REQUIRED.

POSTS WHEN UNTREATED SHALL BE PAINTED WITH TWO COATS OF BROWN WOOD STAIN CONFORMING TO THE REQUIREMENTS OF THE APPLICABLE STANDARD SPECIFICATIONS. TOPS OF POSTS, IF TREATED, SHALL BE PAINTED WITH TWO COATS OF CREOSOTE AFTER ERECTION. IF UNTREATED POST ARE USED, PAINT TOPS WITH TWO COATS OF PRESERVATIVE WOOD STAIN AFTER ERECTION.

**TIMBER RAIL GUARD FENCE,
CURB AND GUARD POST
AND MARKER POST**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

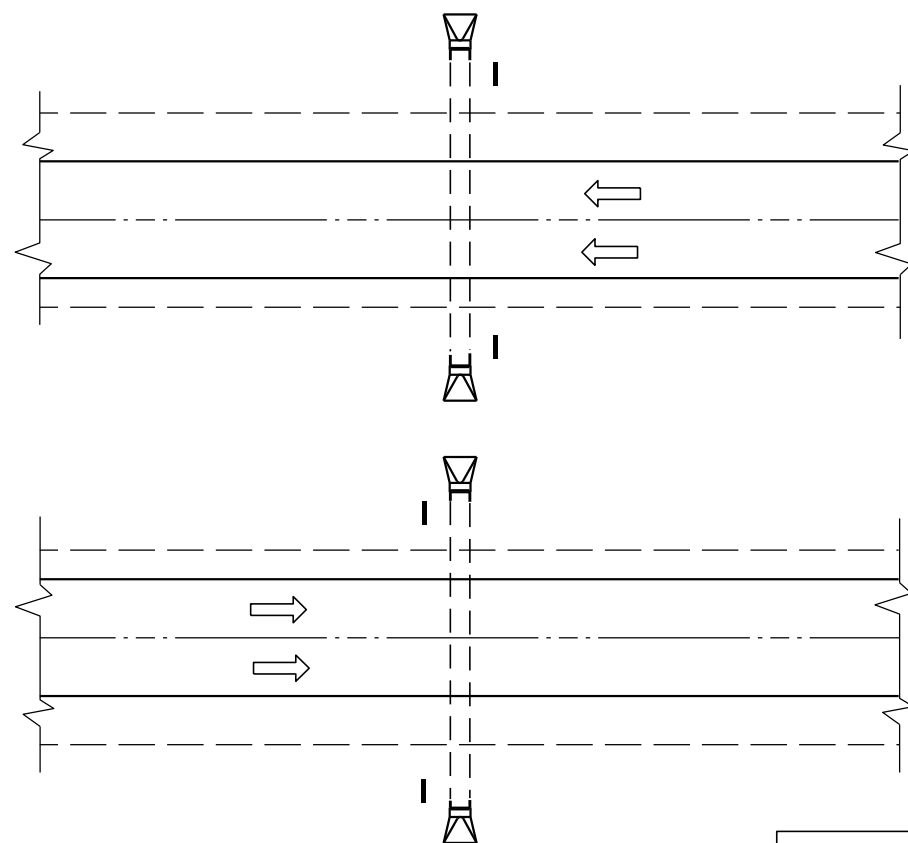
4/23/1974

DATE

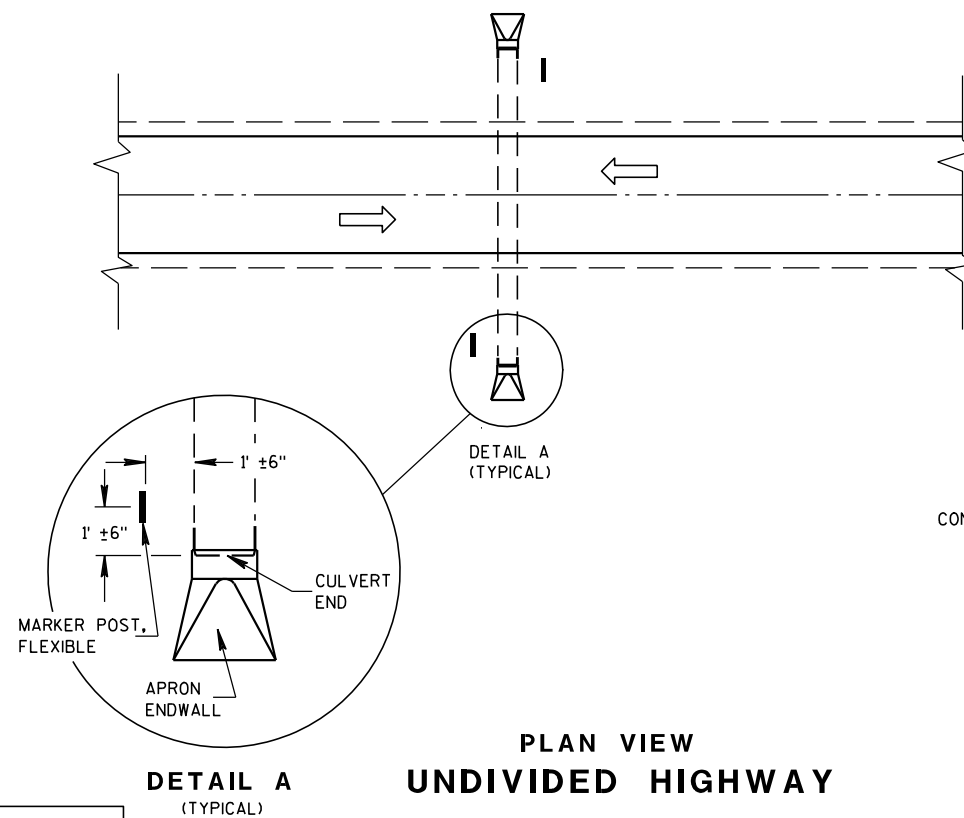
FHWA

/S/ H. Fiedler

STATE HIGHWAY 187

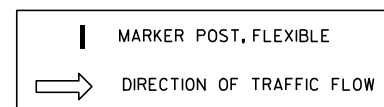


PLAN VIEW
DIVIDED HIGHWAY

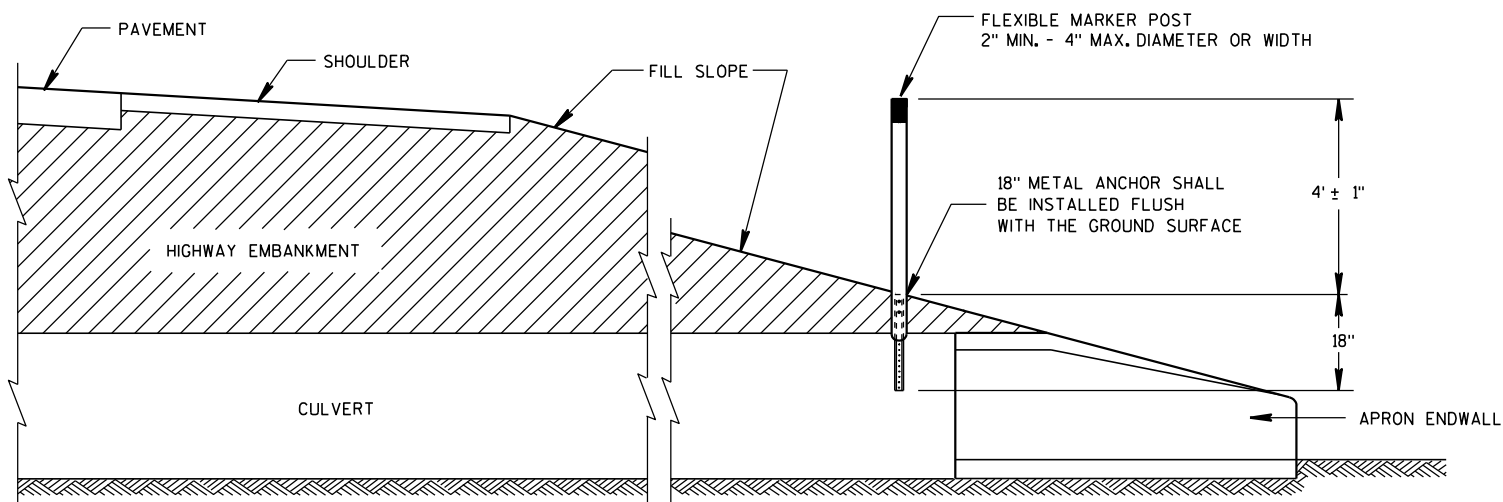


PLAN VIEW
UNDIVIDED HIGHWAY

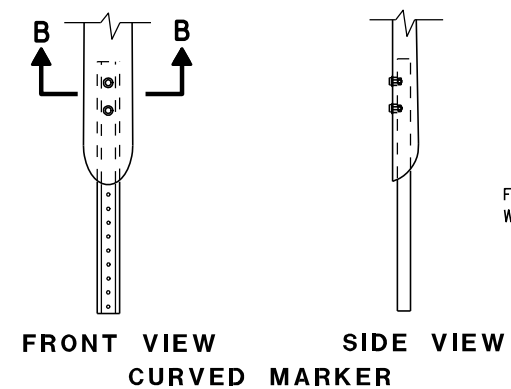
DETAIL A
(TYPICAL)



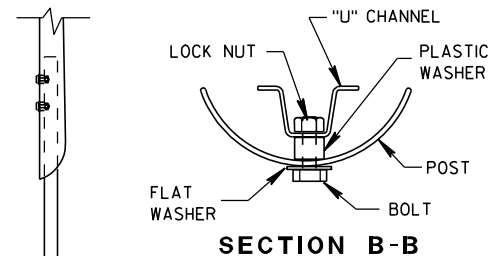
FLEXIBLE MARKER POST LOCATION



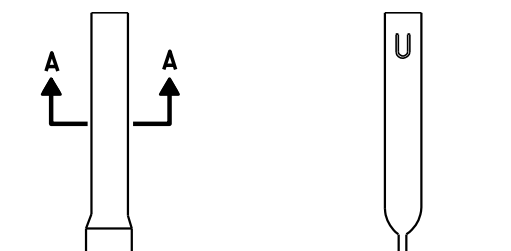
CROSS SECTION
FLEXIBLE MARKER POST



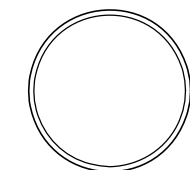
FRONT VIEW
CURVED MARKER



SECTION B-B



FRONT VIEW
ROUND MARKER

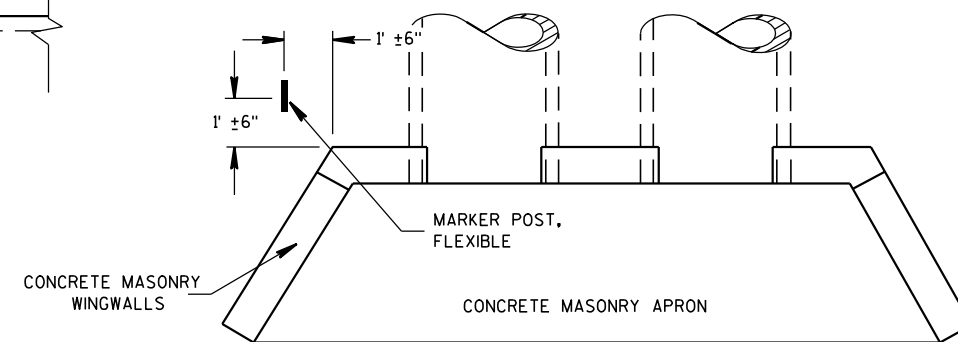


SECTION A-A

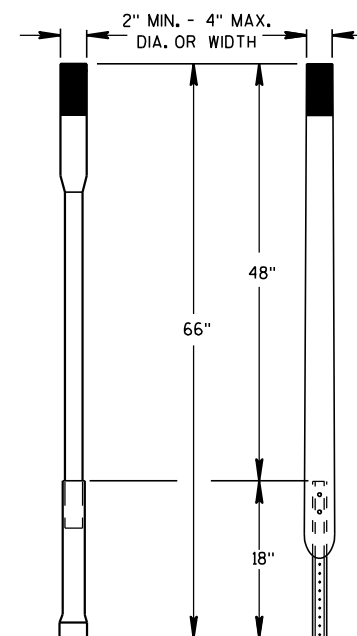
FLEXIBLE MARKER POST ANCHORS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



ALTERNATE 1 ALTERNATE 2
FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE,
FOR CULVERT END

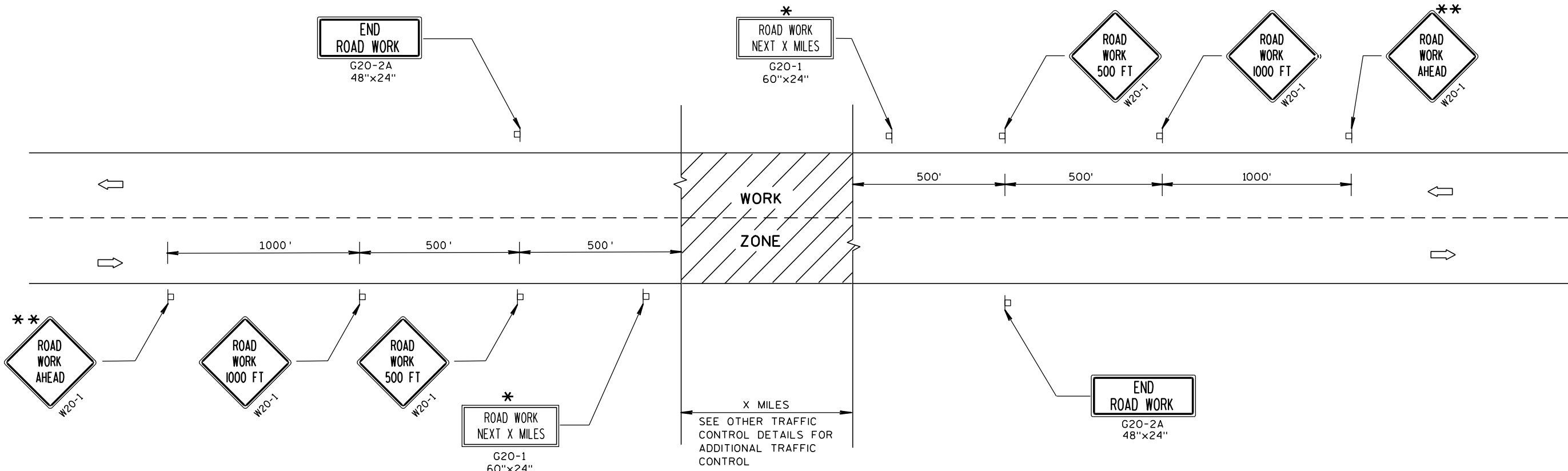
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

FHWA

/S/ Rory L. Rhin...
CHIEF ROADWAY DEVELOP...
188 INEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

LEGEND

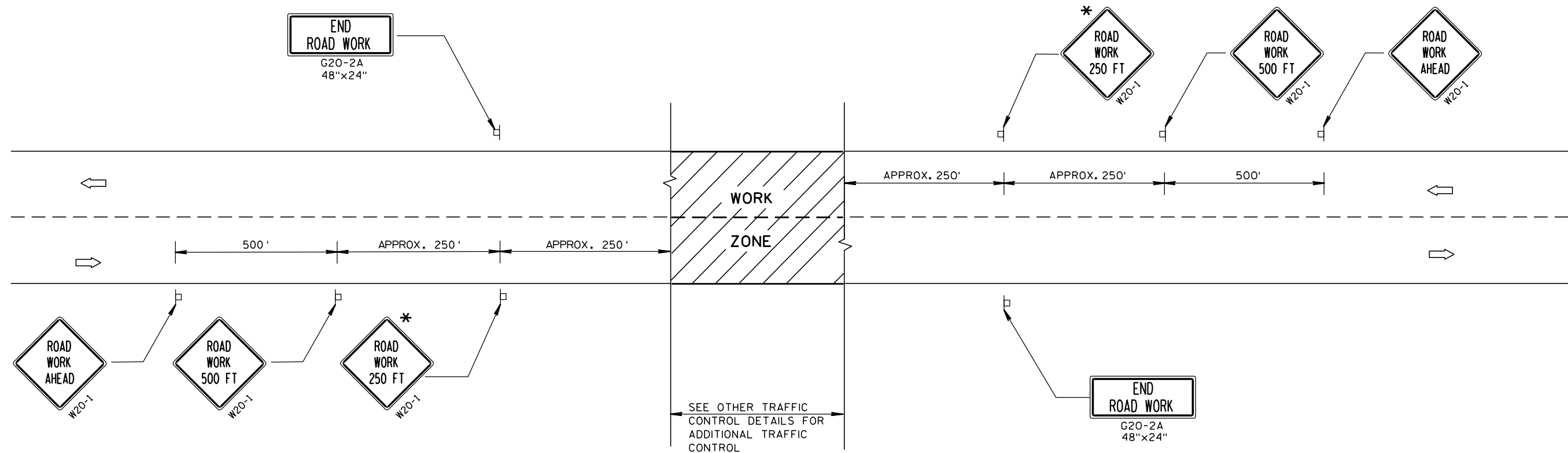
┆ POST MOUNTED SIGN

➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Neer
DATE CHIEF SIGNS AND MARKINGS 189
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

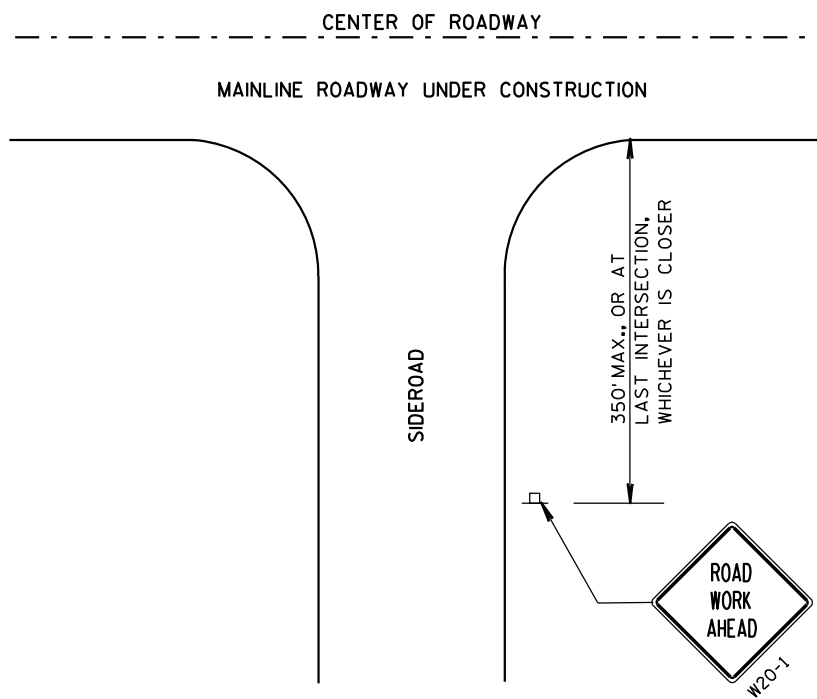
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

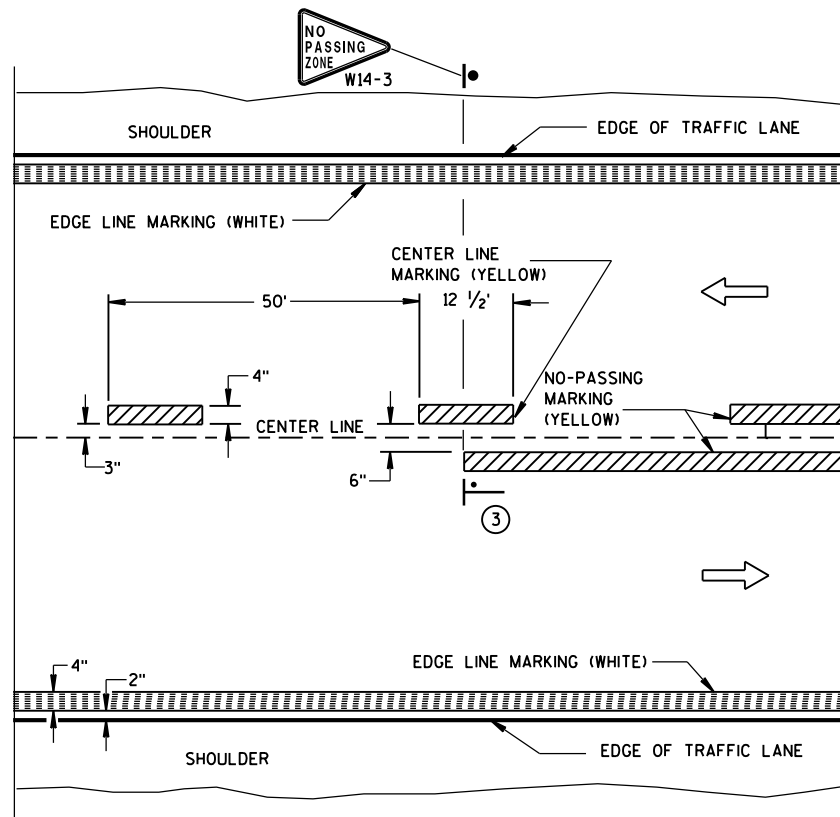
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



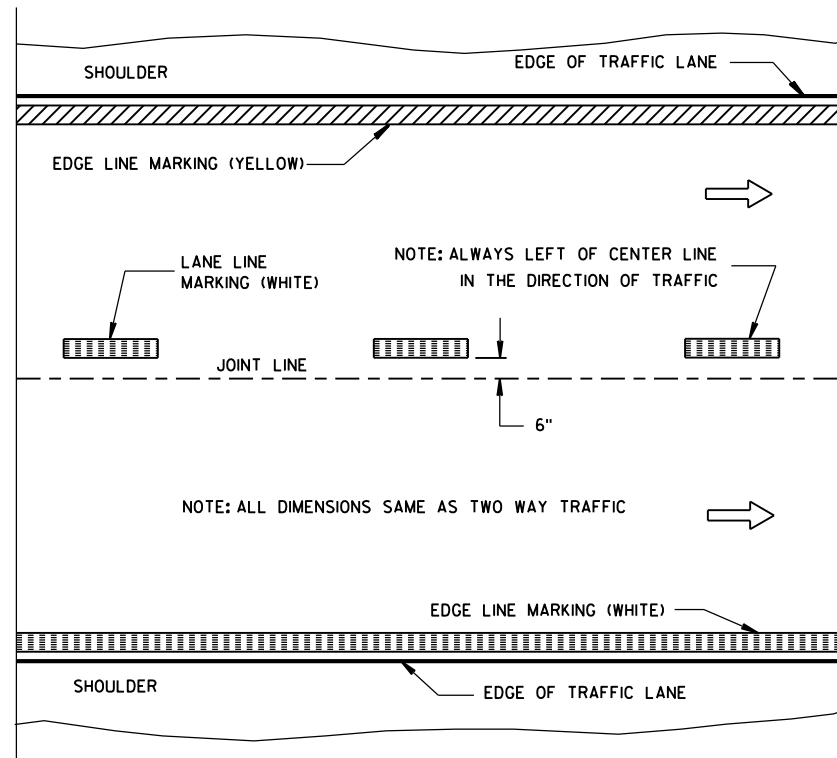
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. 190 CHIEF SIGNS AND MARKING ENGINEER
FHWA	

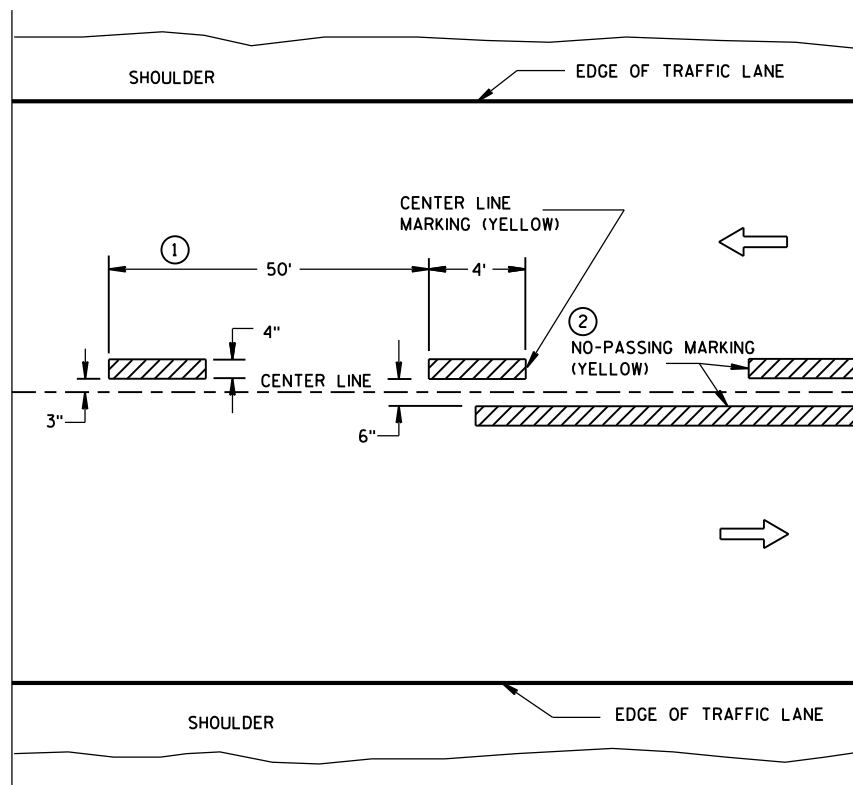


TWO WAY TRAFFIC

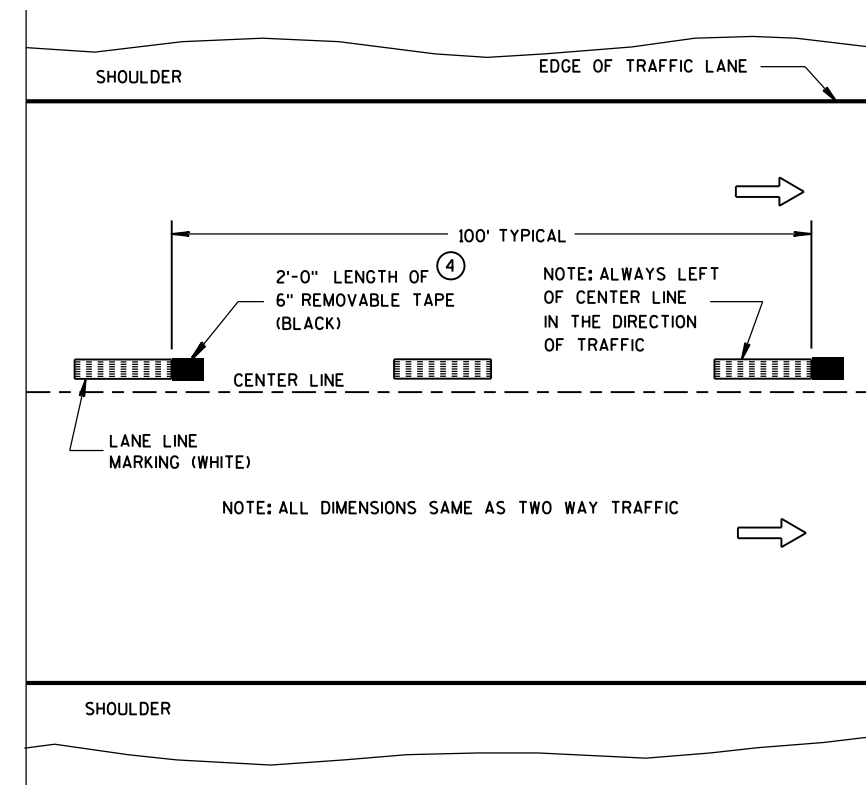


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

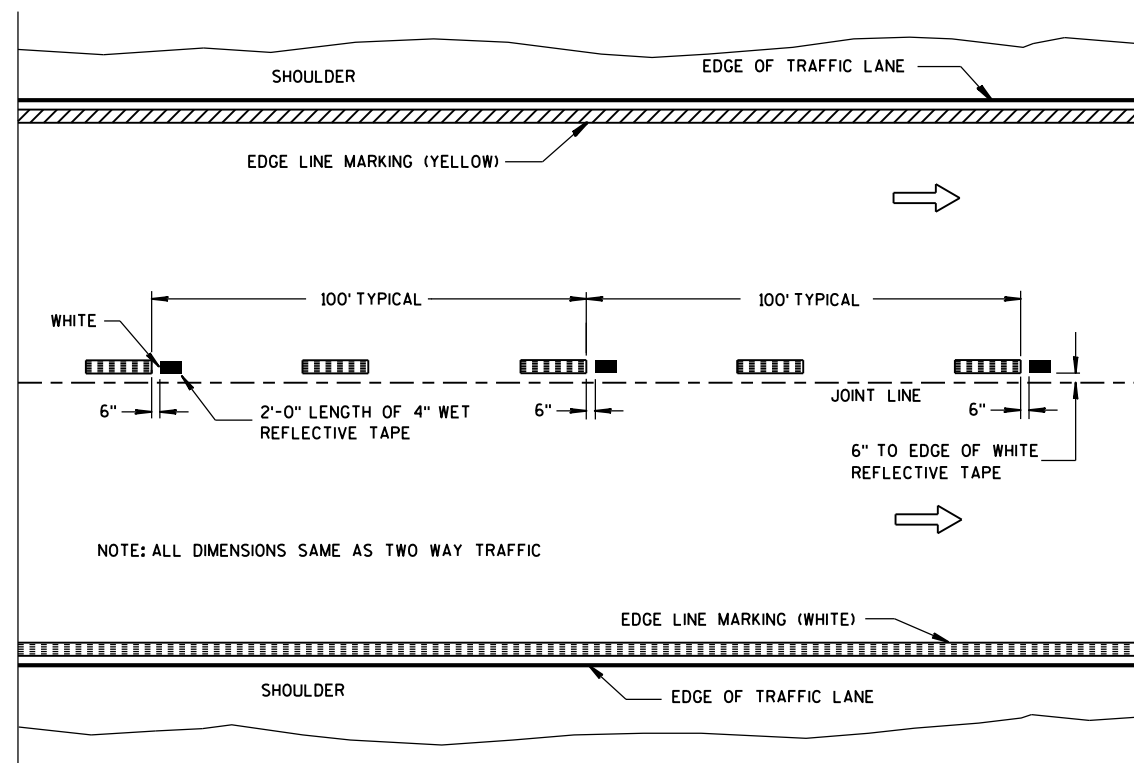
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

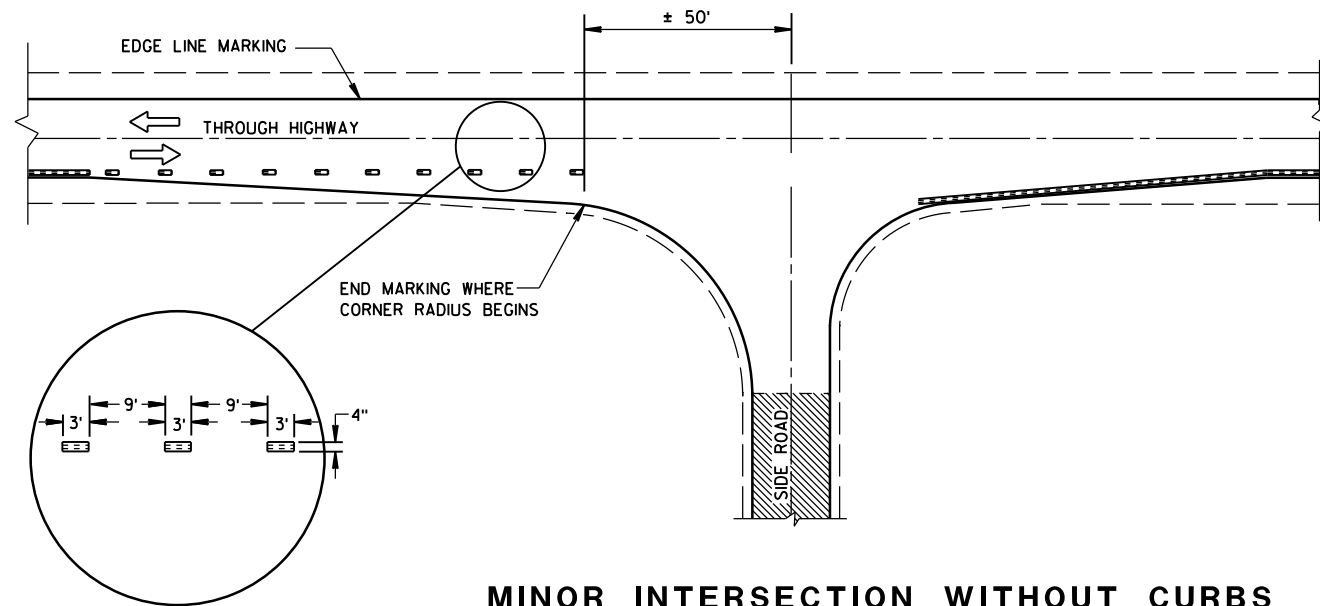
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

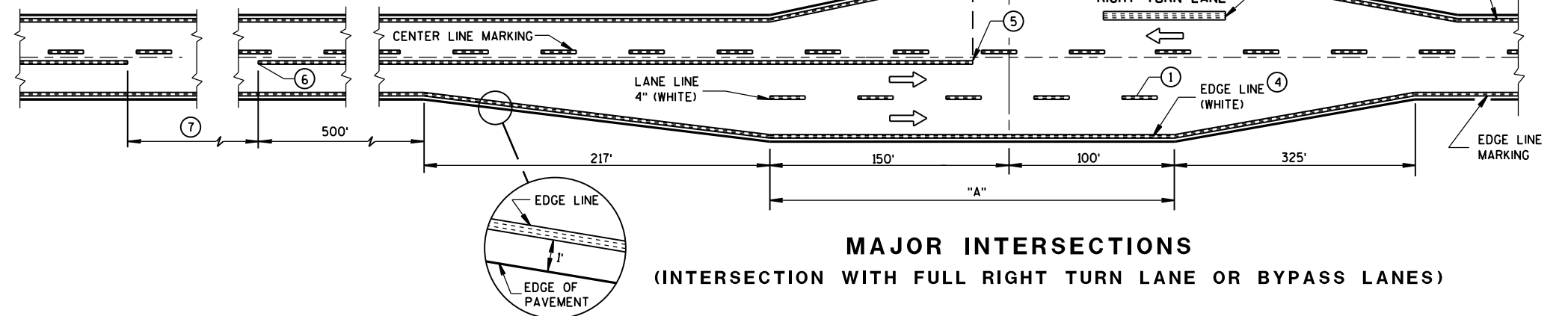
APPROVED
10-1-2012 /S/ Travis Fettes
DATE STATE TRAFFIC ENGINE 191 :SIGN
FHWA



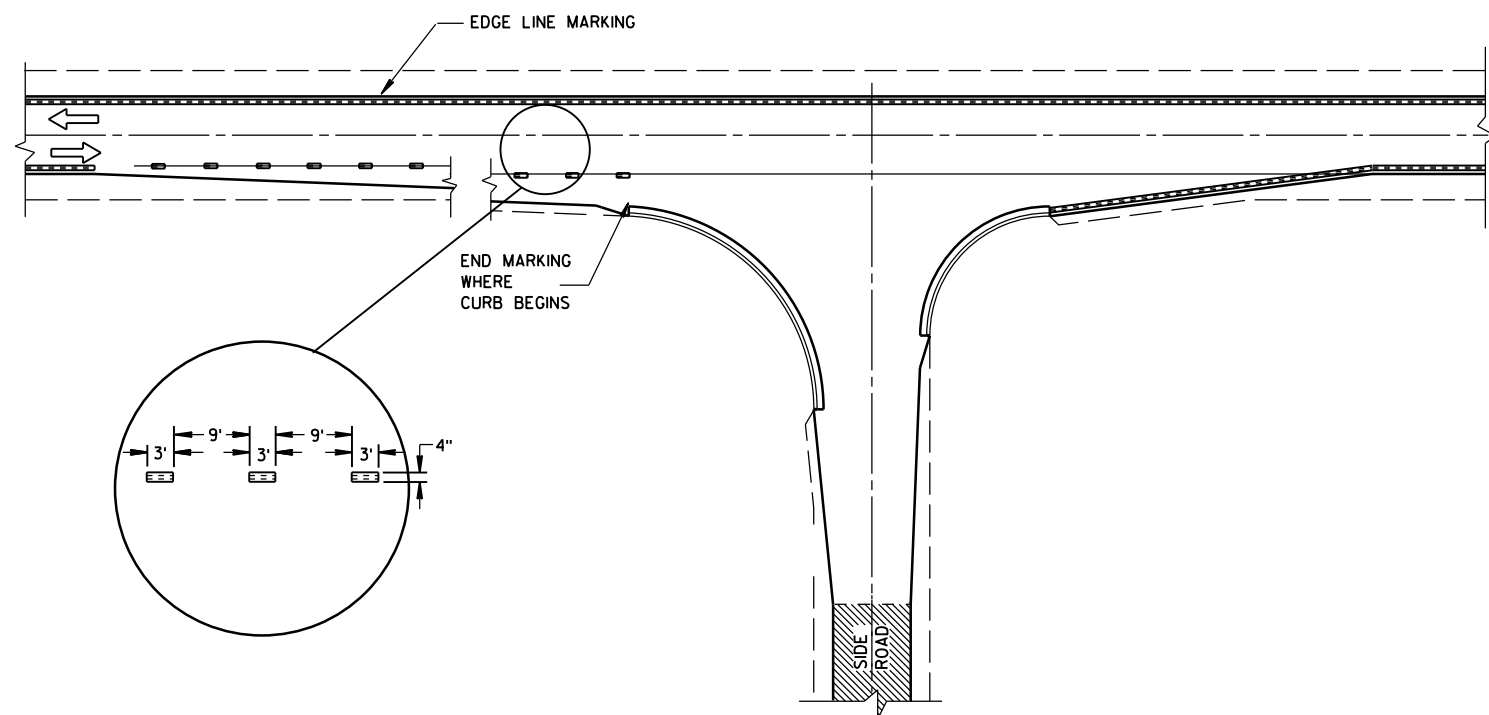
MINOR INTERSECTION WITHOUT CURBS

⑦

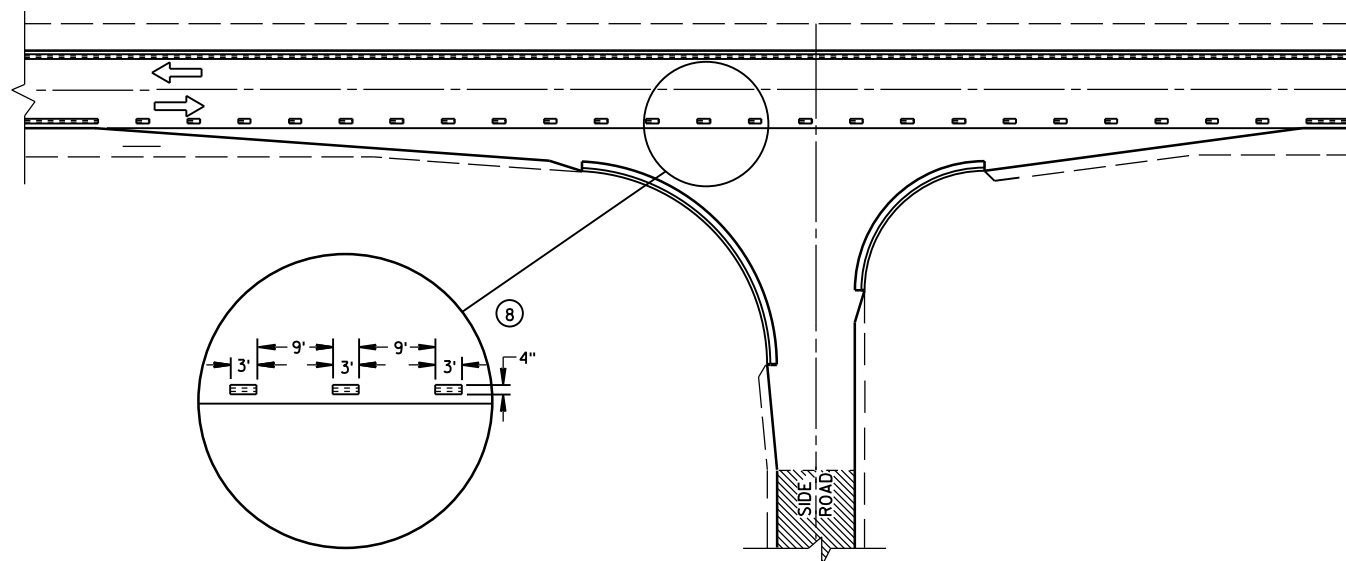
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

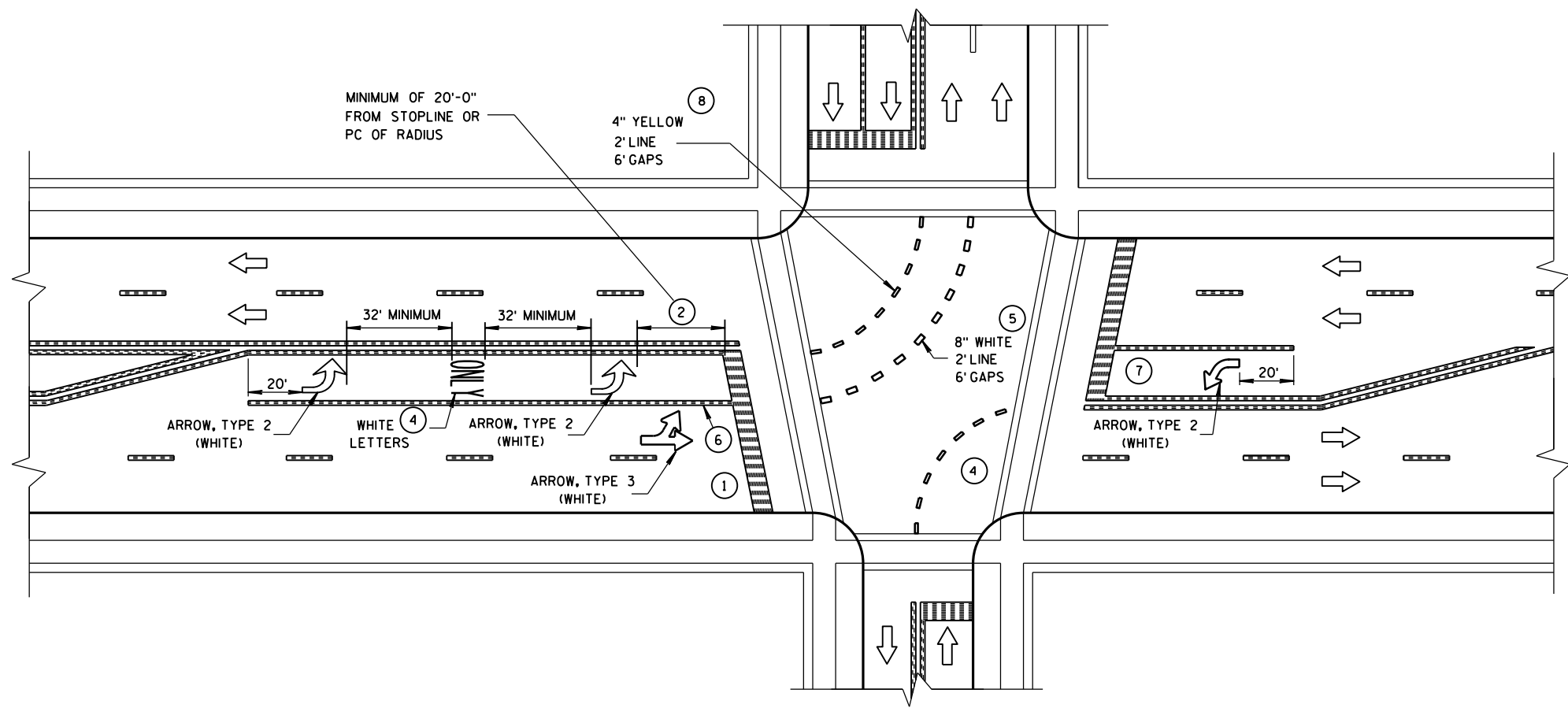
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
- ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

- ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
- ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

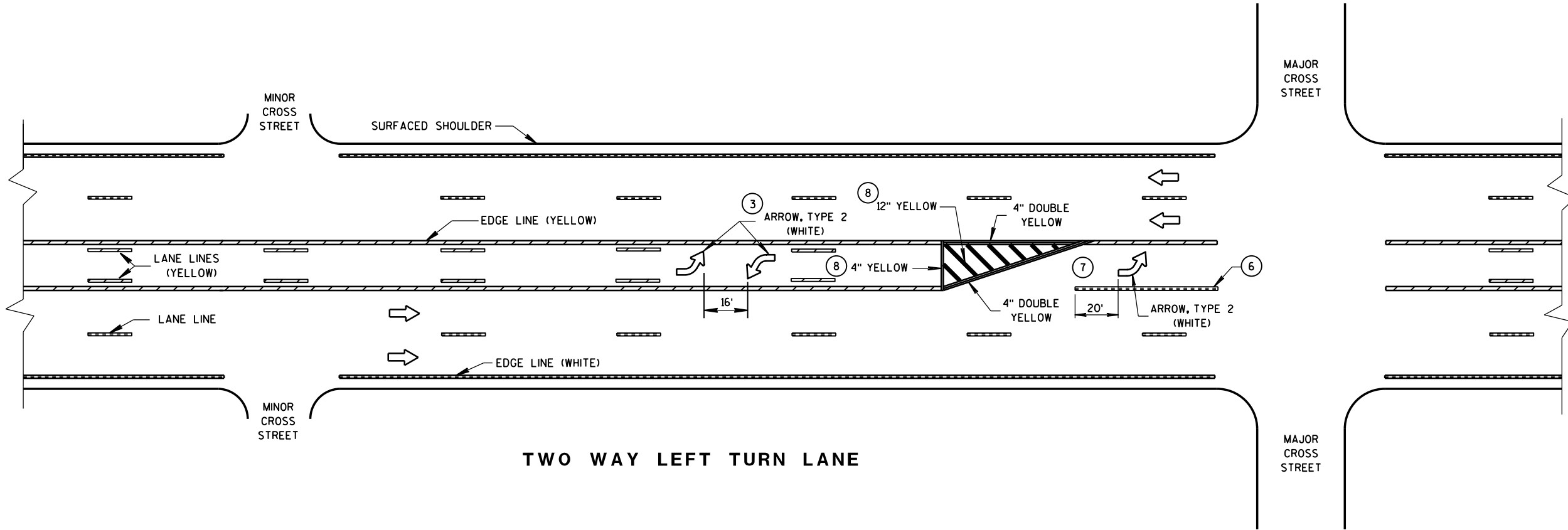
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 192



GENERAL NOTES

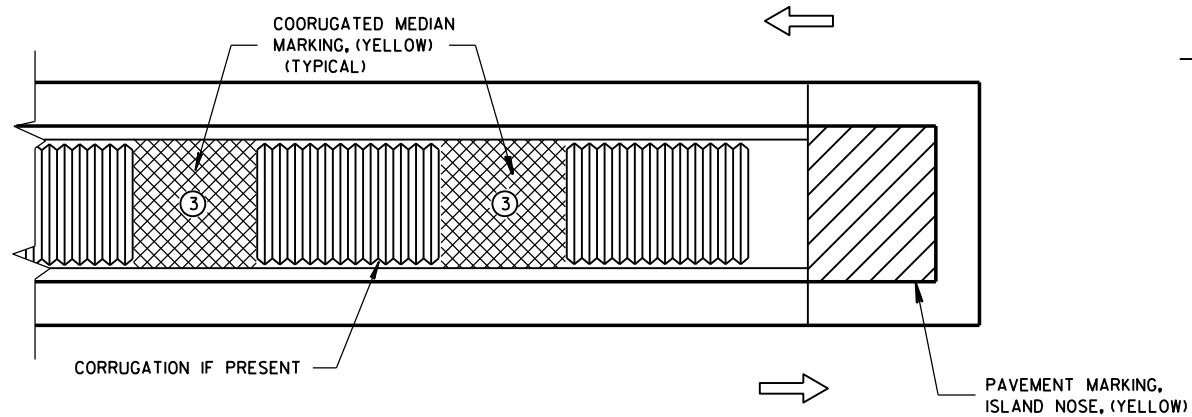
- 1 STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- 2 DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- 3 A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- 4 ADD EXTRA ARROW AND ONLY PER 160' OR WHEN ON A CURVE.
- 5 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- 6 8" WHITE
- 7 ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108'.
- 8 REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL

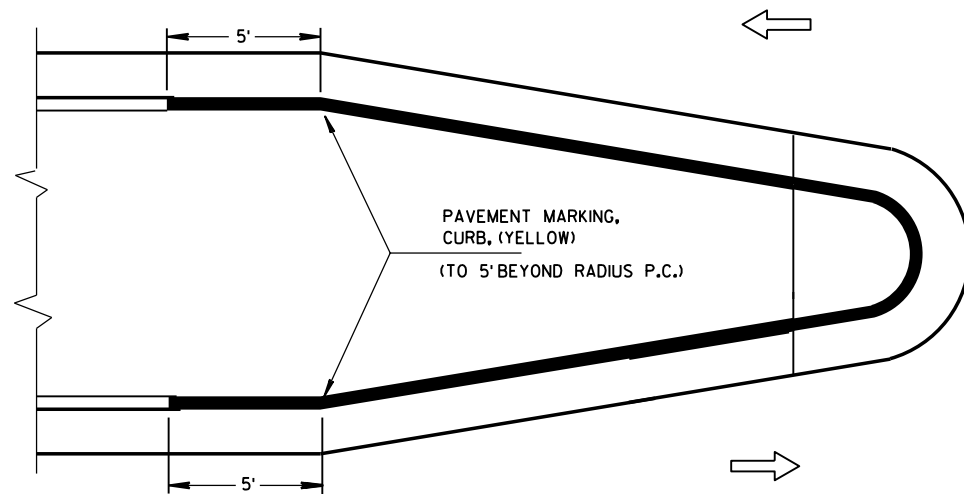


TWO WAY LEFT TURN LANE

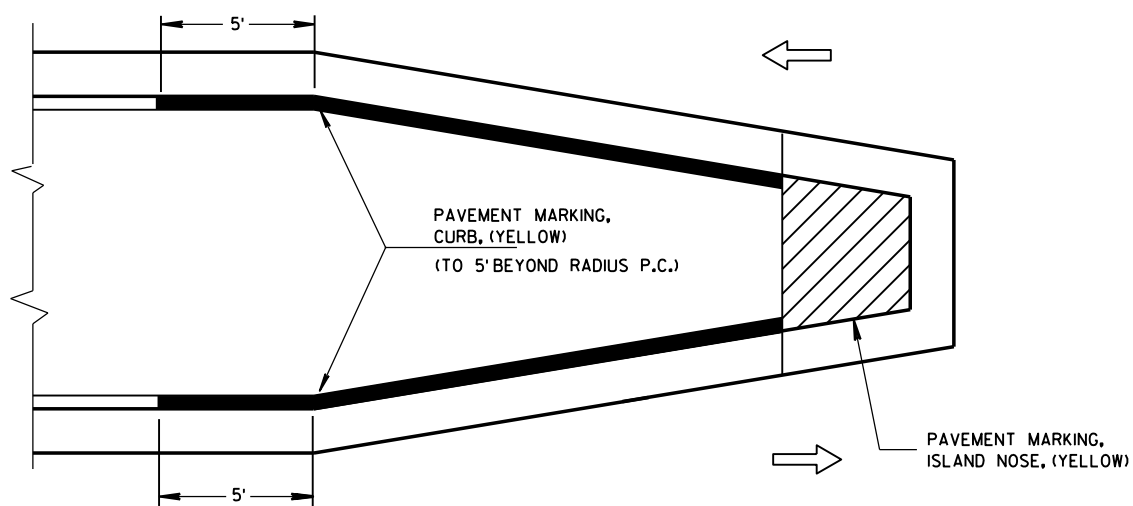
PAVEMENT MARKING (LEFT TURN LANE)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 193



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

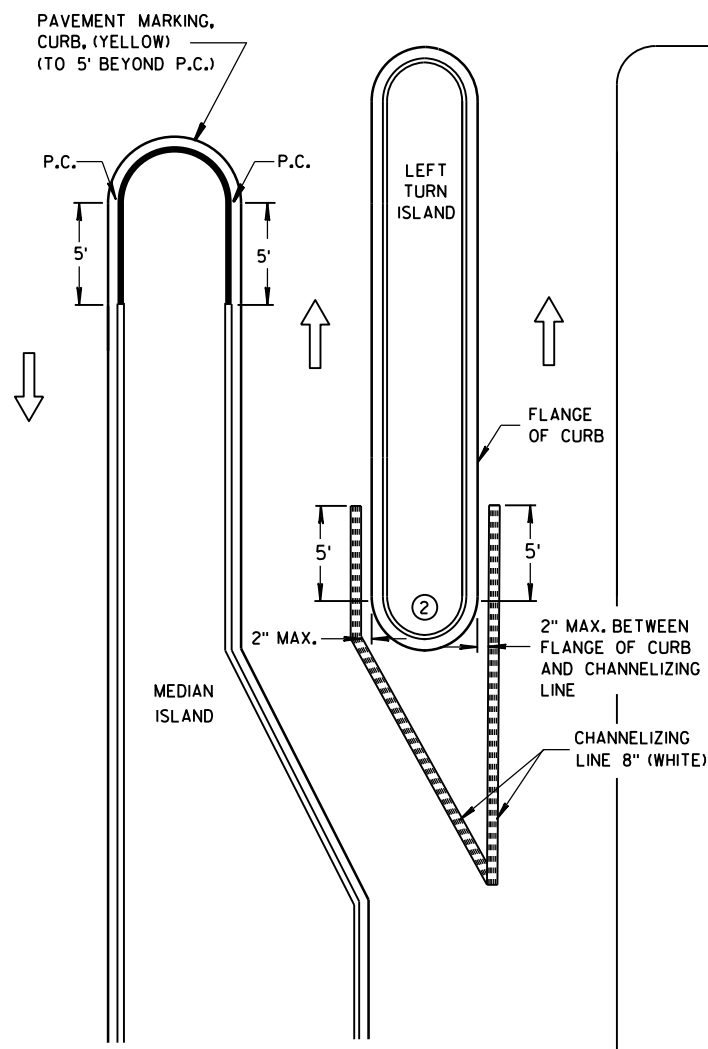


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

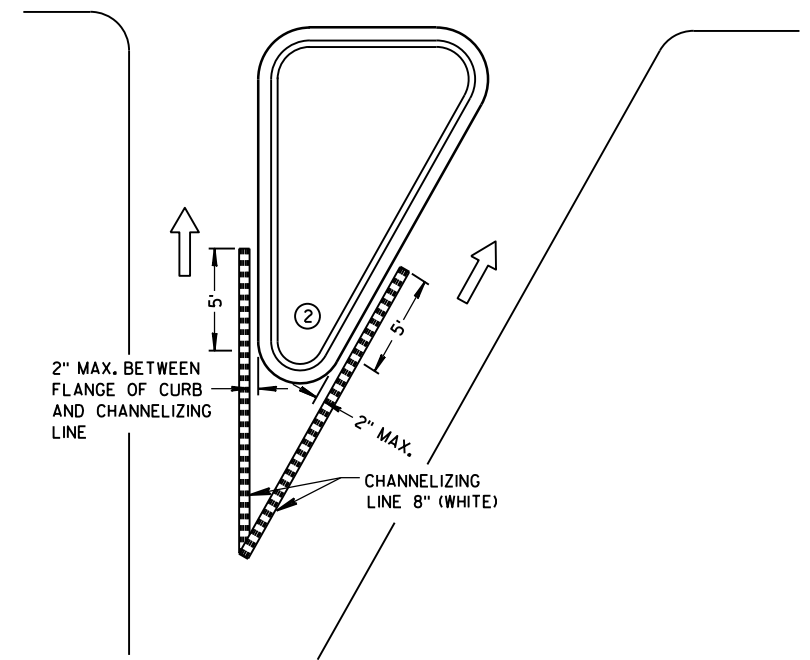
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

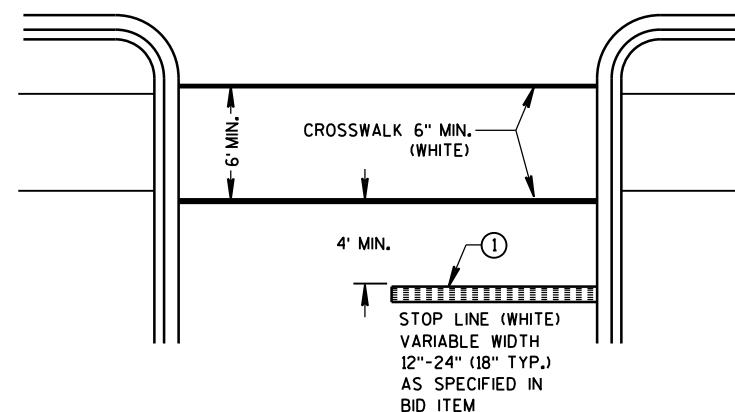
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 194

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



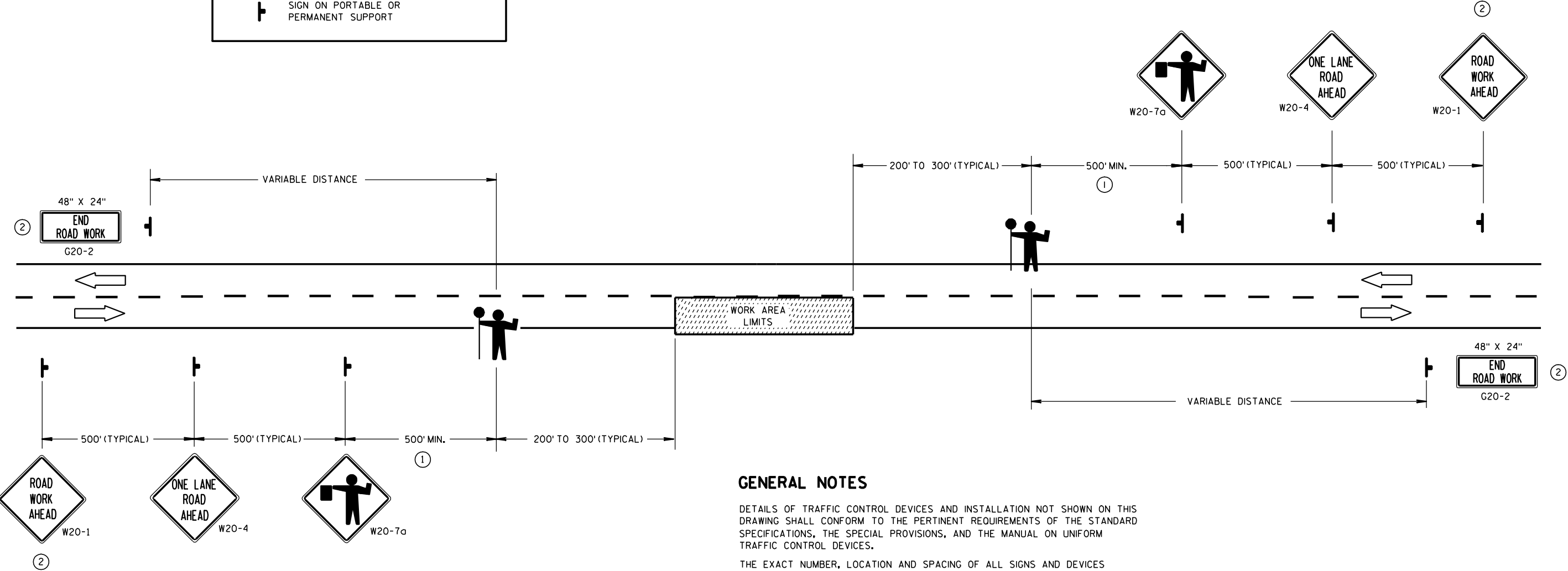
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

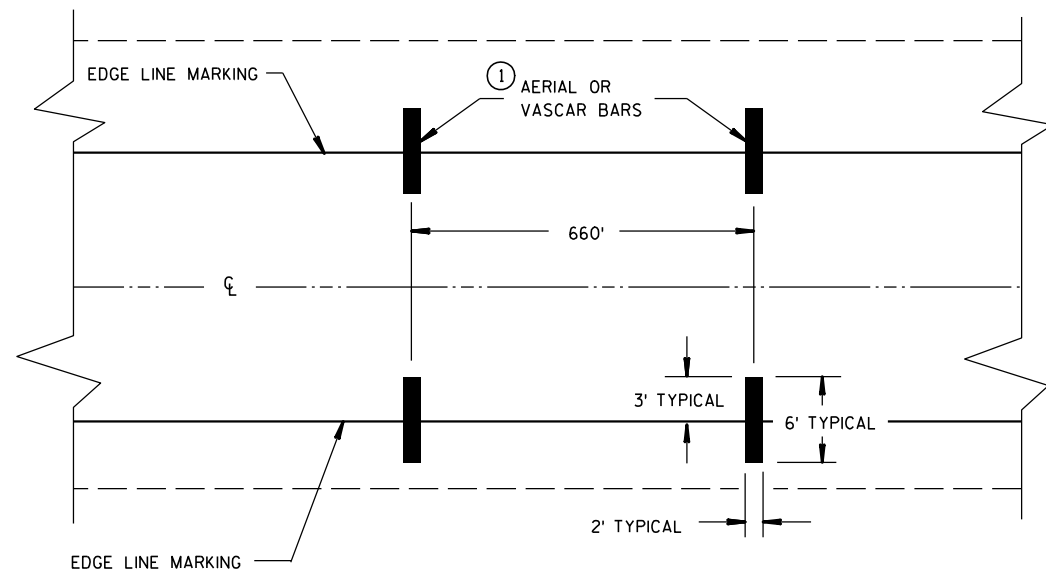
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

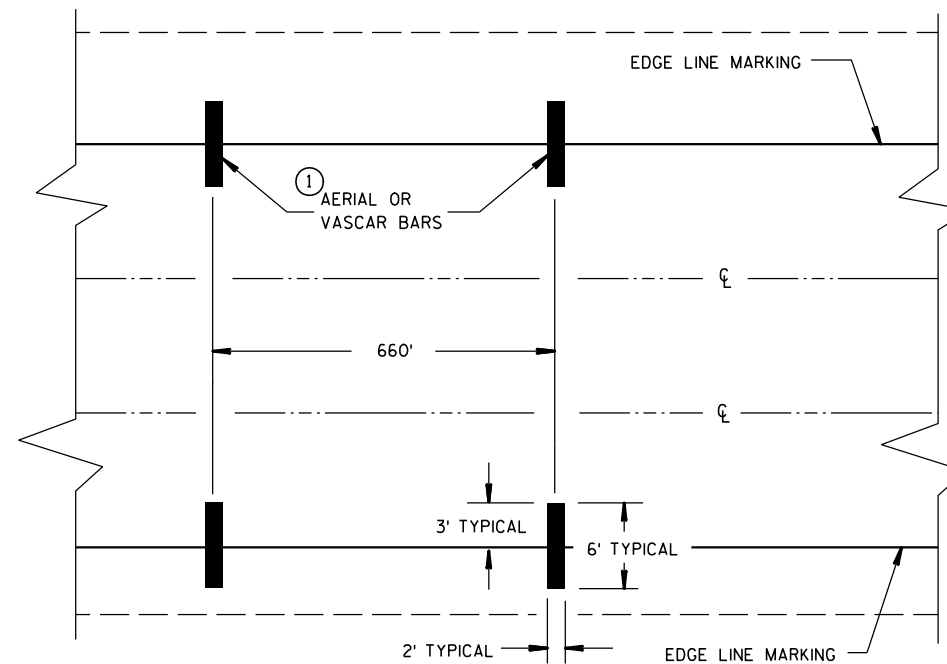
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/5/06 /S/ Thomas N. Nethehm
DATE STATE TRAFFIC ENGINE 195 DESIGN
FHWA



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

GENERAL NOTES

- ① NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.

AERIAL ENFORCEMENT BARS
PAVEMENT MARKING DETAILS

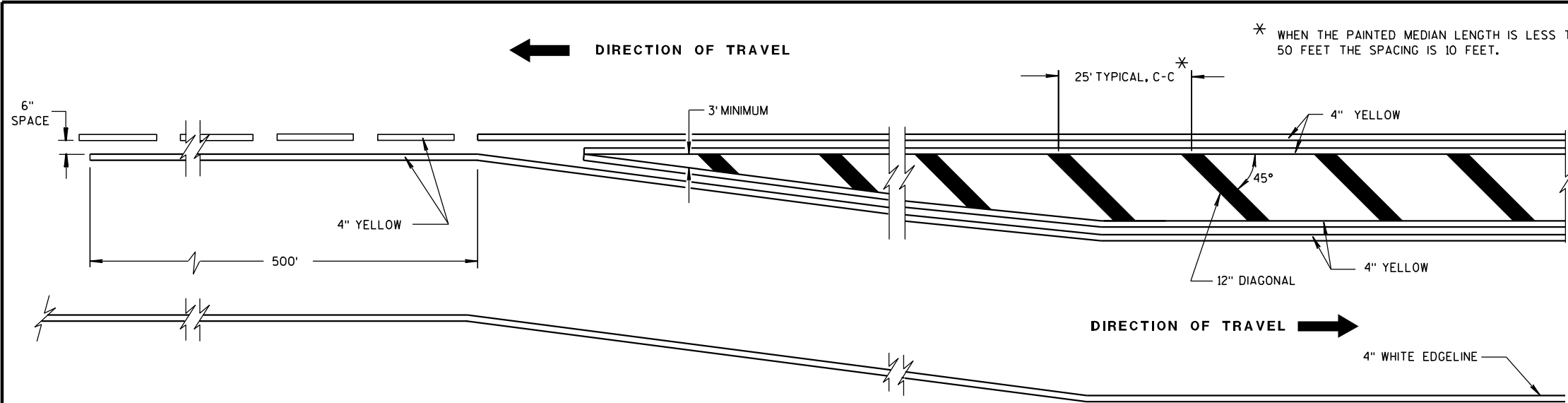
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/23/01
DATE

/S/ Chester L. Seng
CHIEF SIGNS AND MARKS 196 ENGINEER

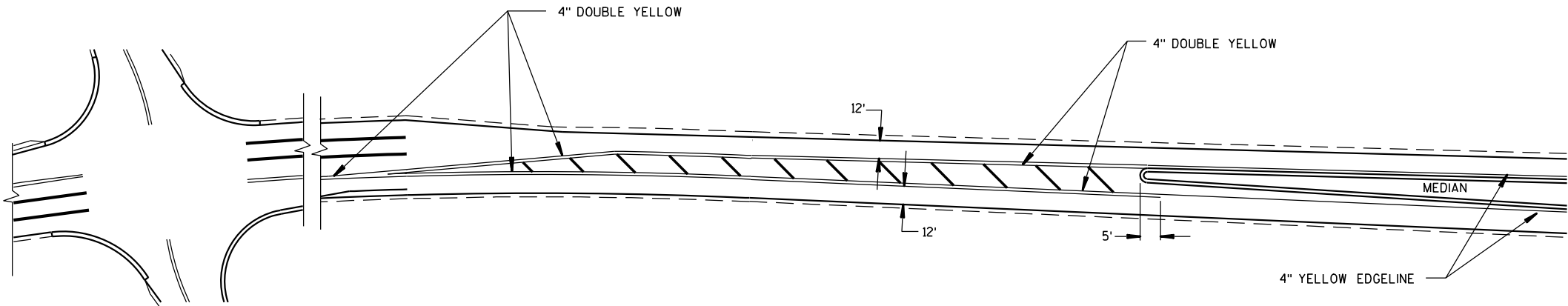
FHWA



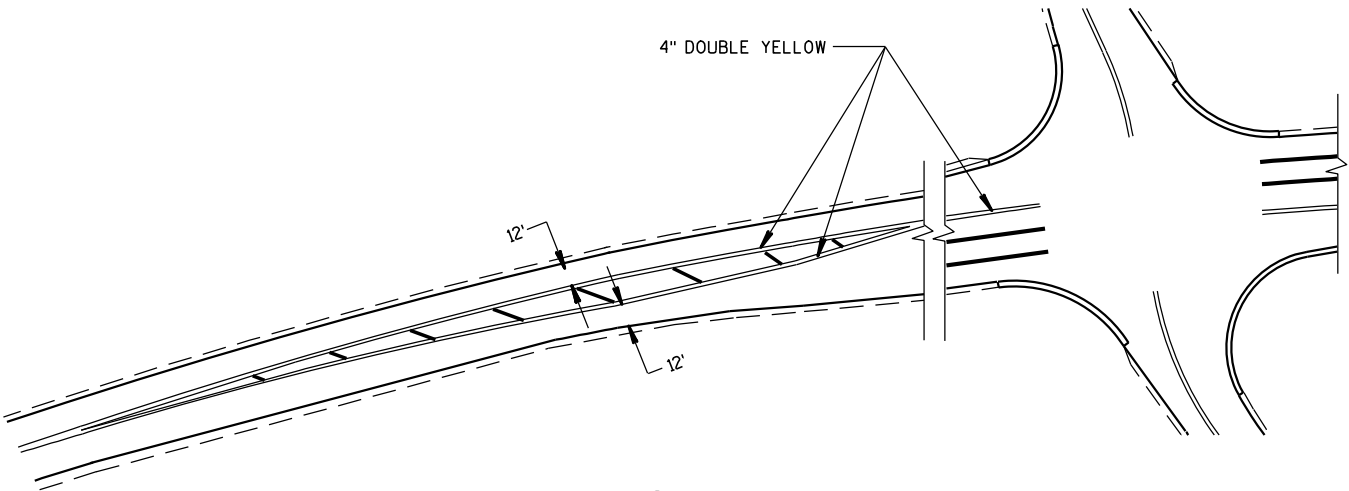
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

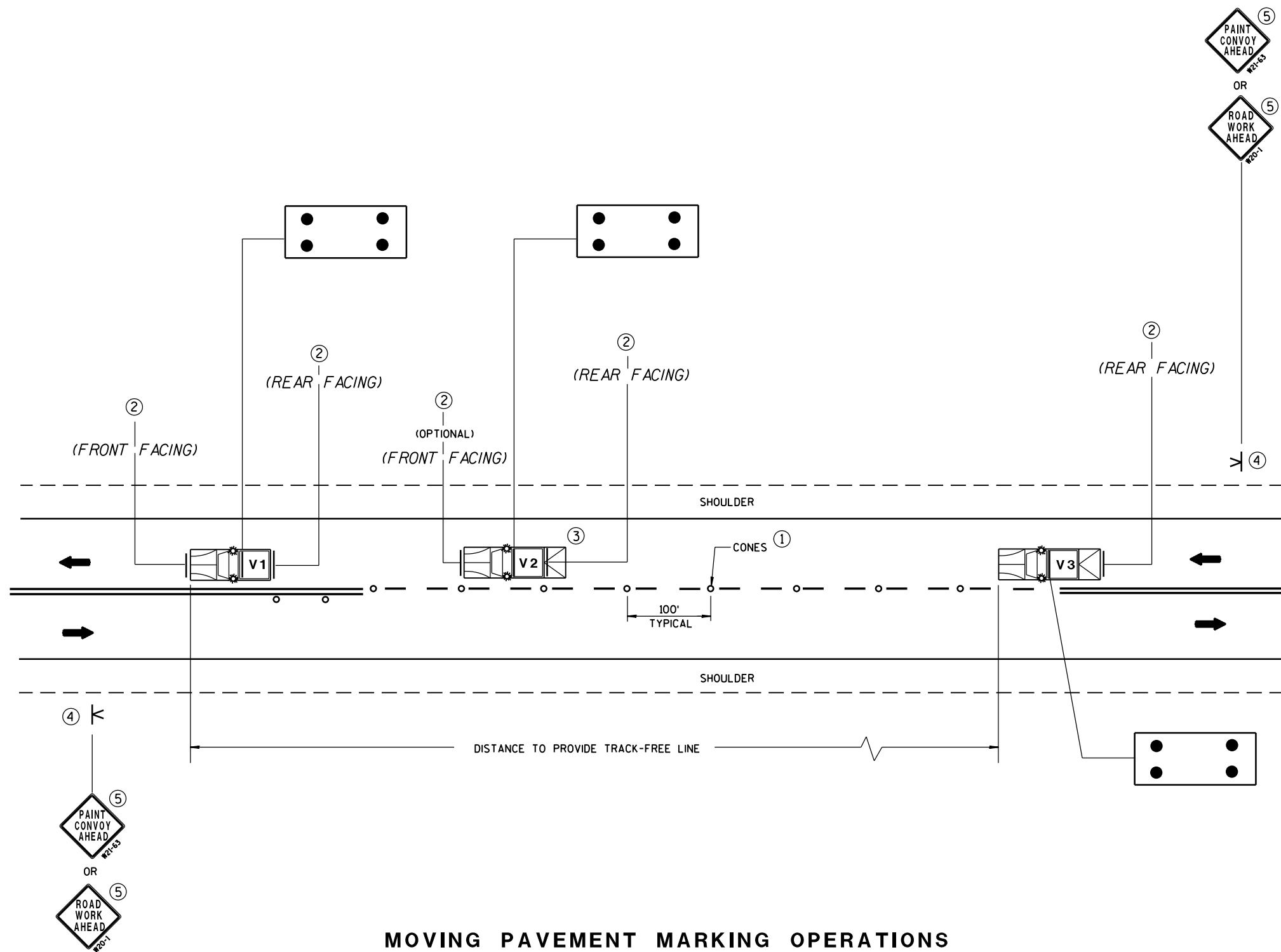


APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED	/S/ Thomas N. Nothohm		
2-5-09	DATE	STATE TRAFFIC ENGINEE	197
FHWA			



MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

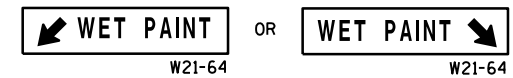
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

K SIGN ON PORTABLE SUPPORT

→ DIRECTION OF TRAVEL

o CONES

⬢ FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

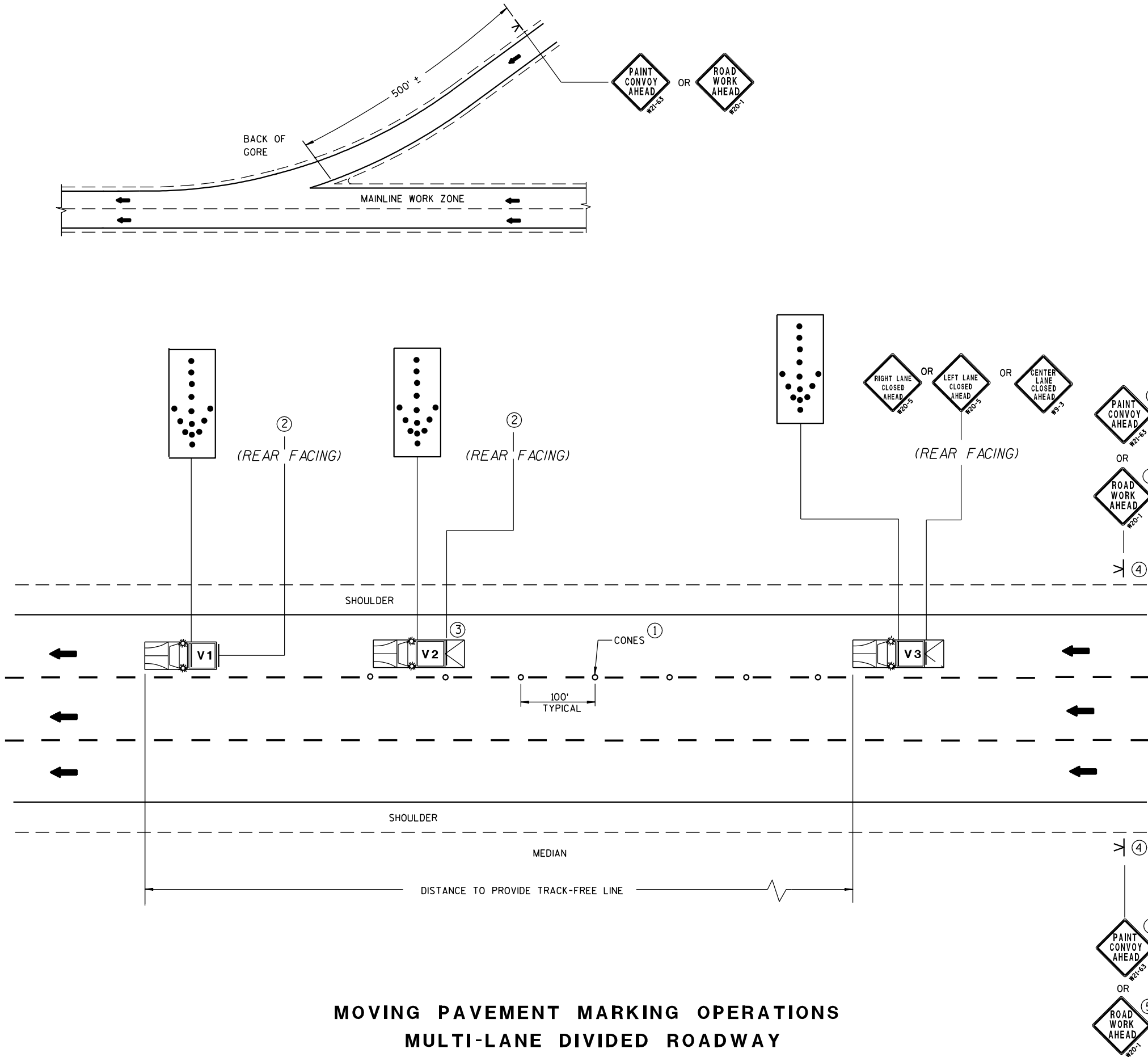
APPROVED

12/6/2011
DATE

FHWA

/s/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER 198 SIGN





MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT

OR

WET PAINT

W21-64

W21-64
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

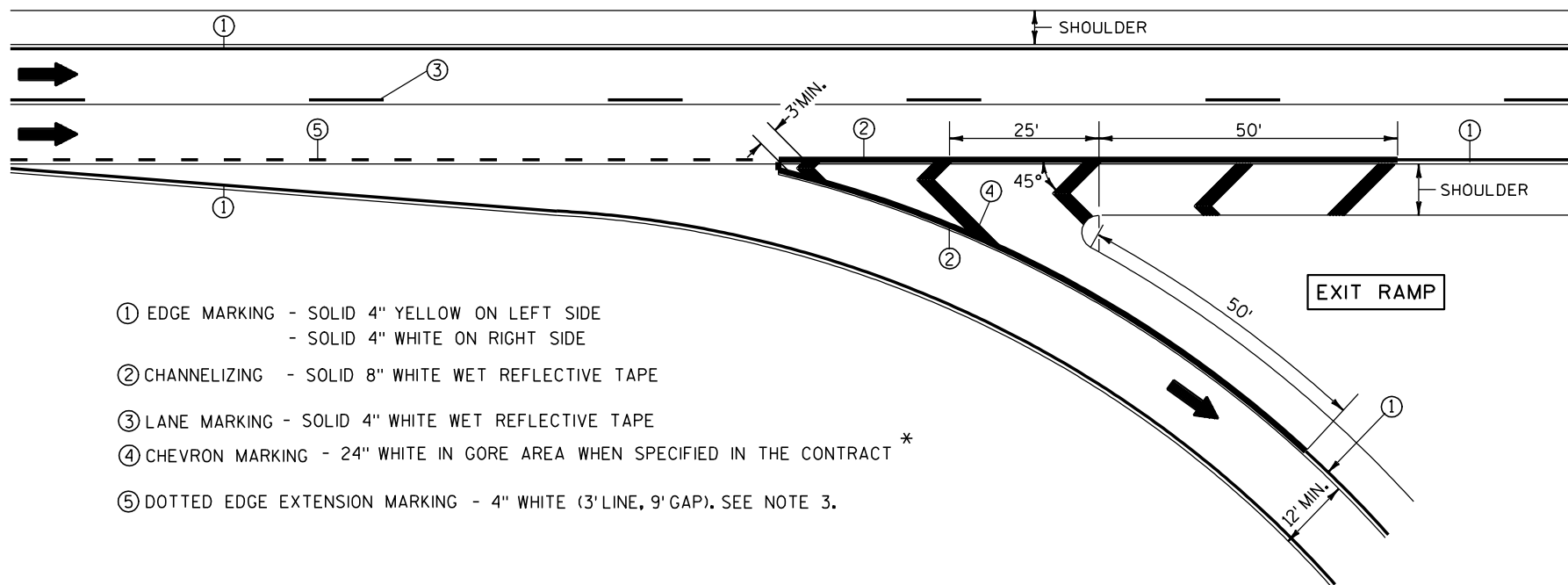
LEGEND

- V1 LEAD VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE WITH TMA
- TMA TRUCK-MOUNTED ATTENUATOR
- SIGN ON PORTABLE SUPPORT
- DIRECTION OF TRAVEL
- CONES
- FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING
OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 12/6/2011
STATE TRAFFIC ENGINEER 200
SIGN
FHWA

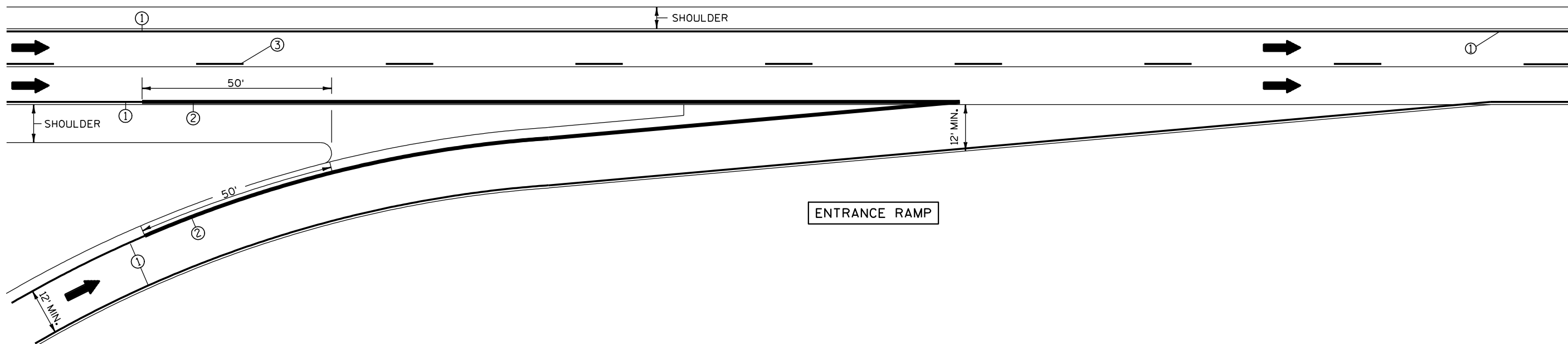


- ① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- ② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE
- ③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *
- ⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
- 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

201

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

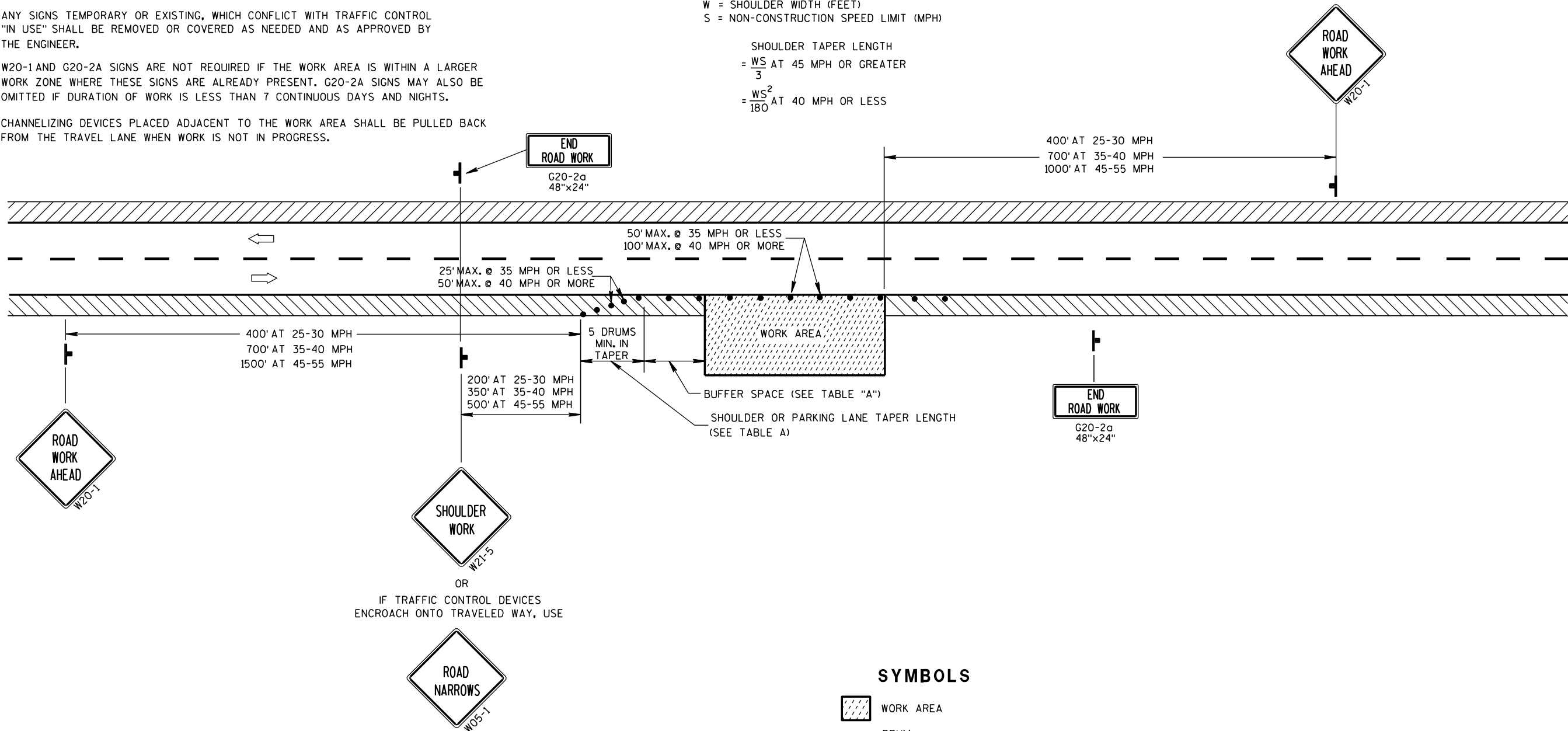
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



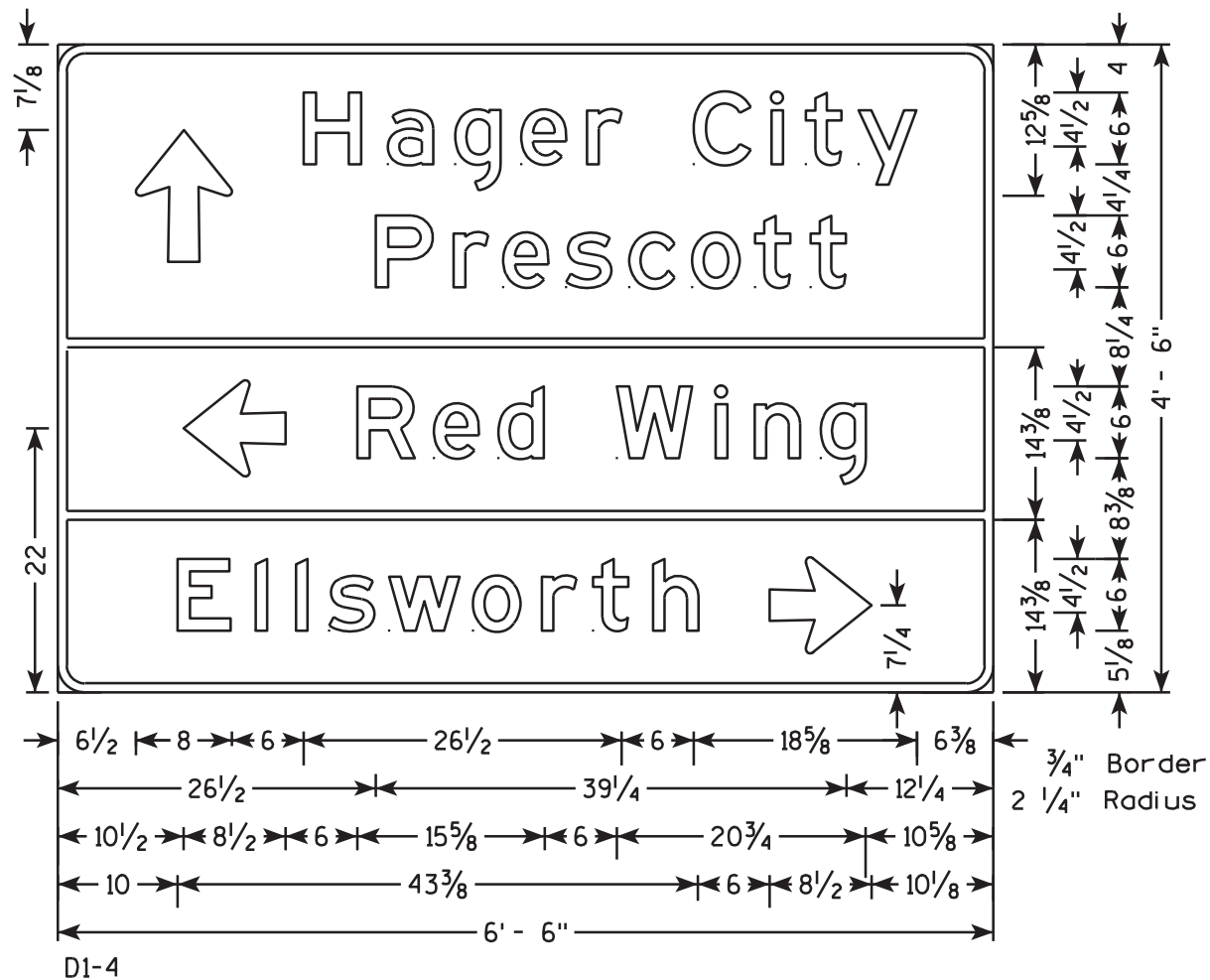
SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

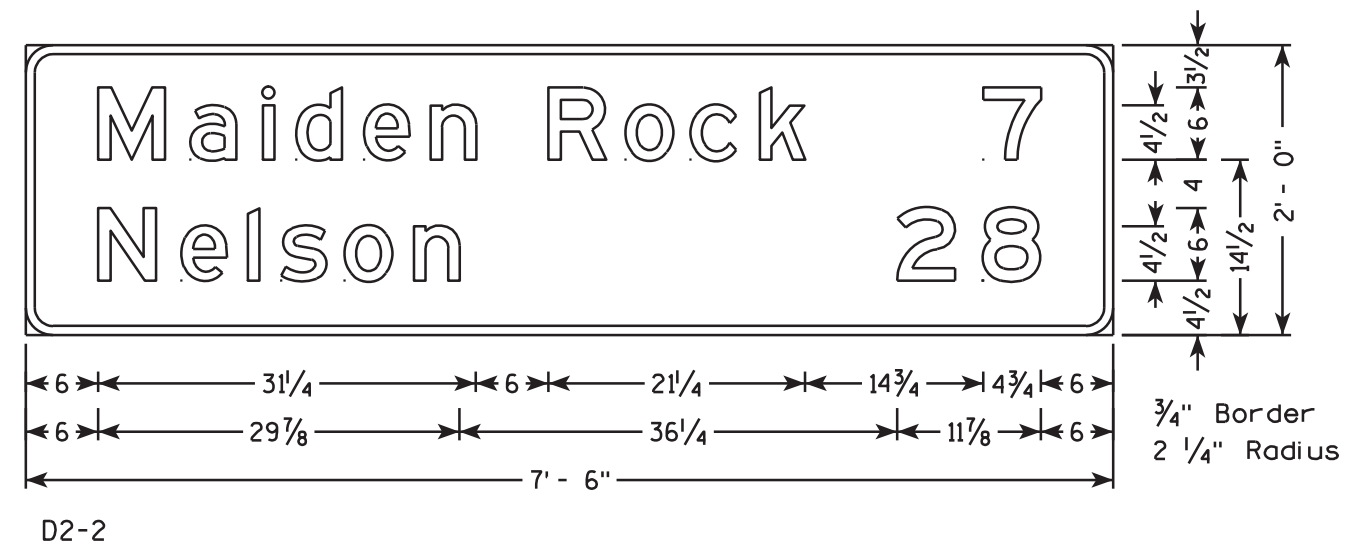
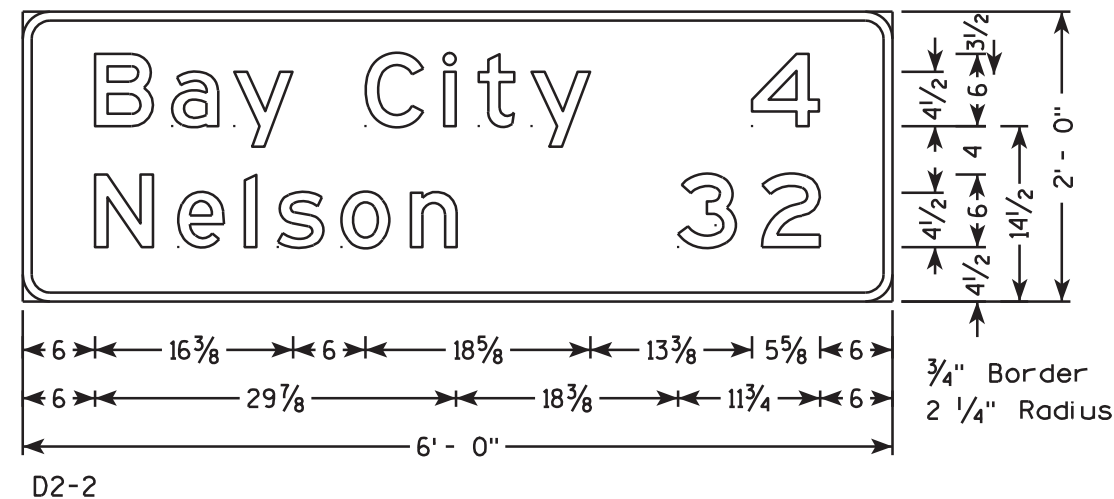
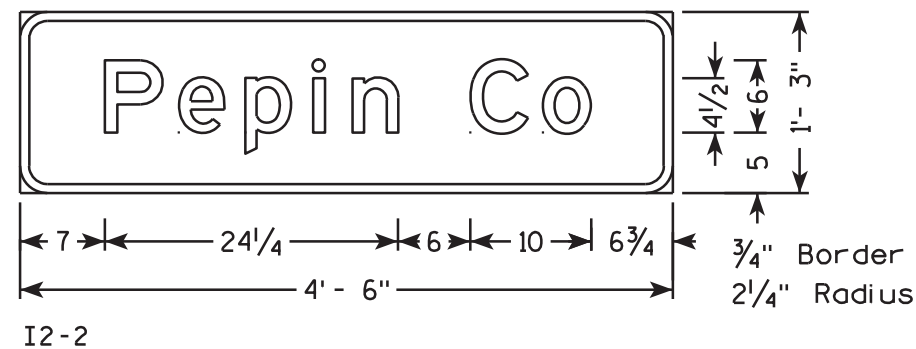
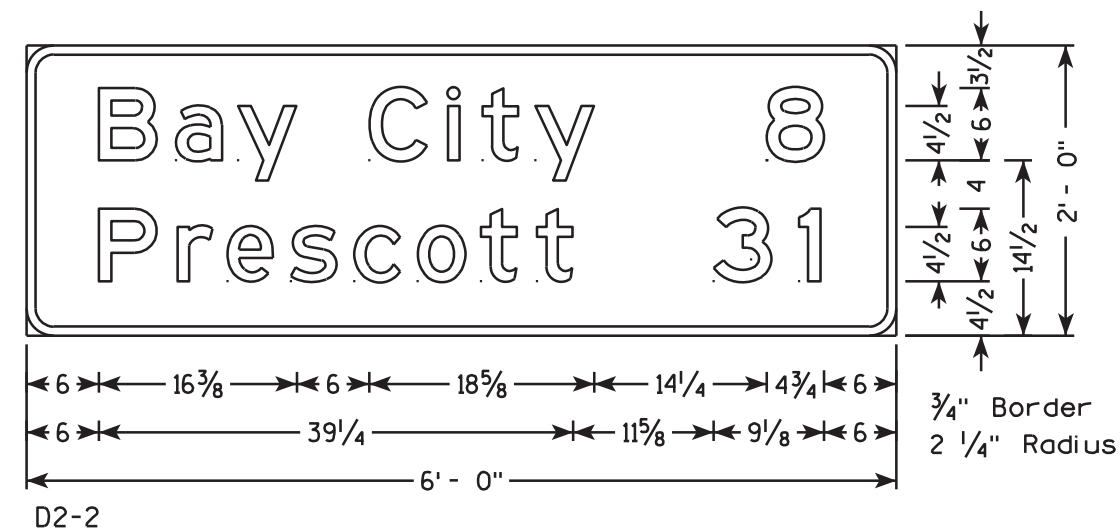
TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

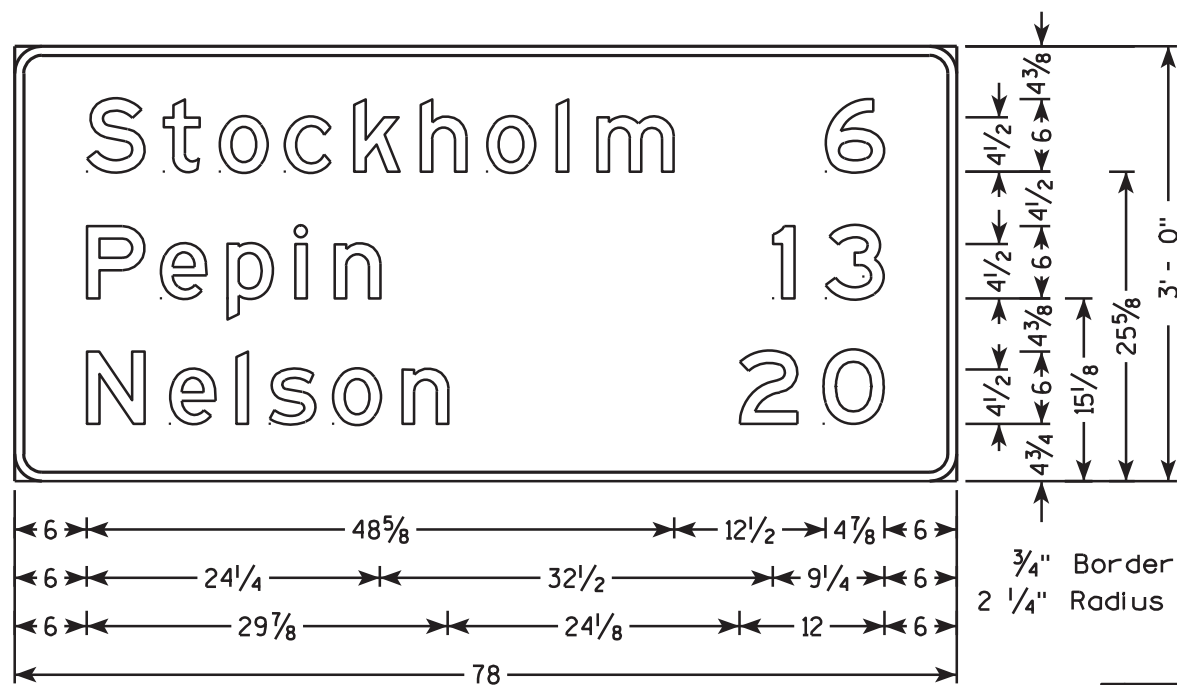
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. NNEER
DATE CHIEF SIGNS AND MARK 202
FHWA

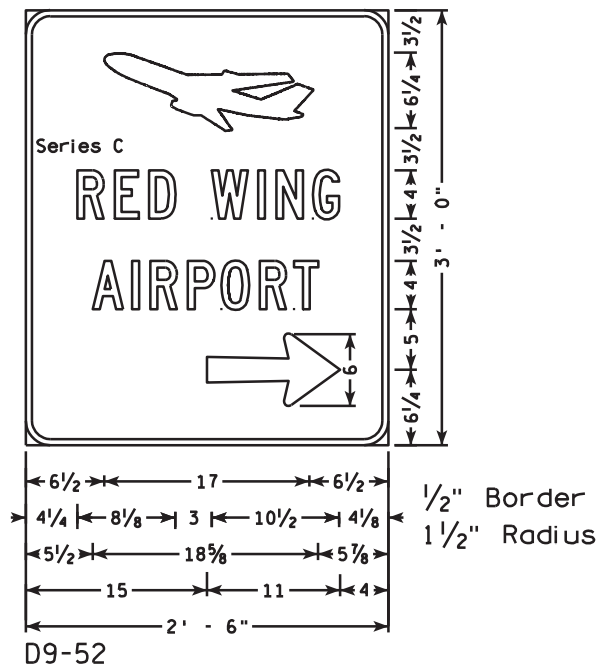


- NOTES**
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - GREEN
Message - WHITE
 3. Message Series - E



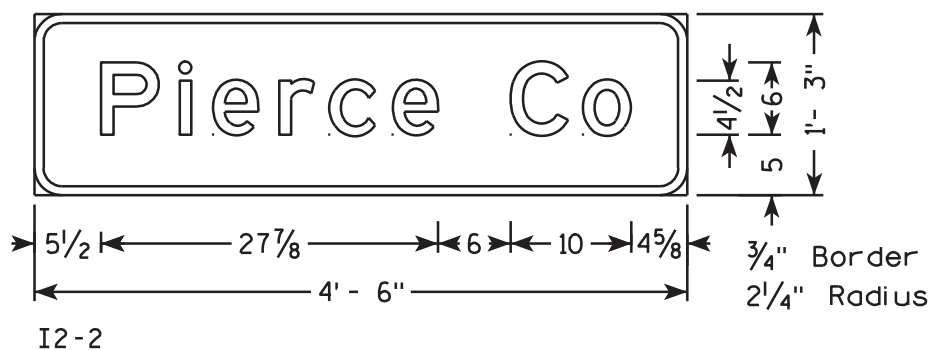


D2-3

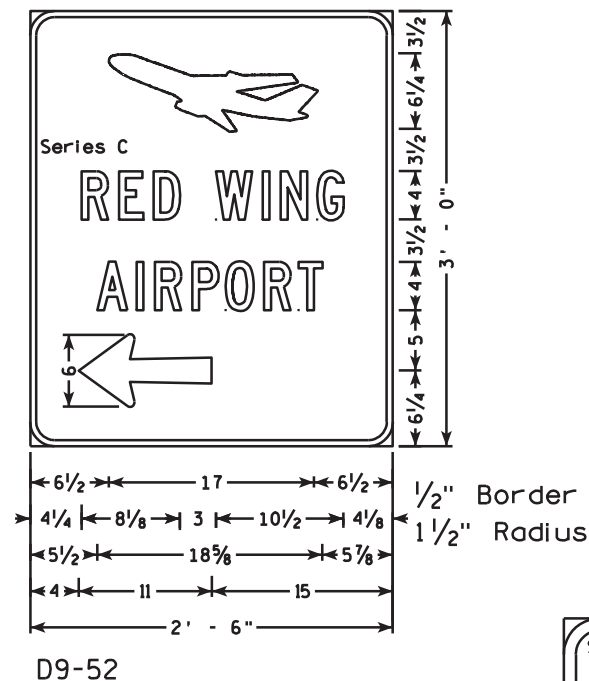


D9-52

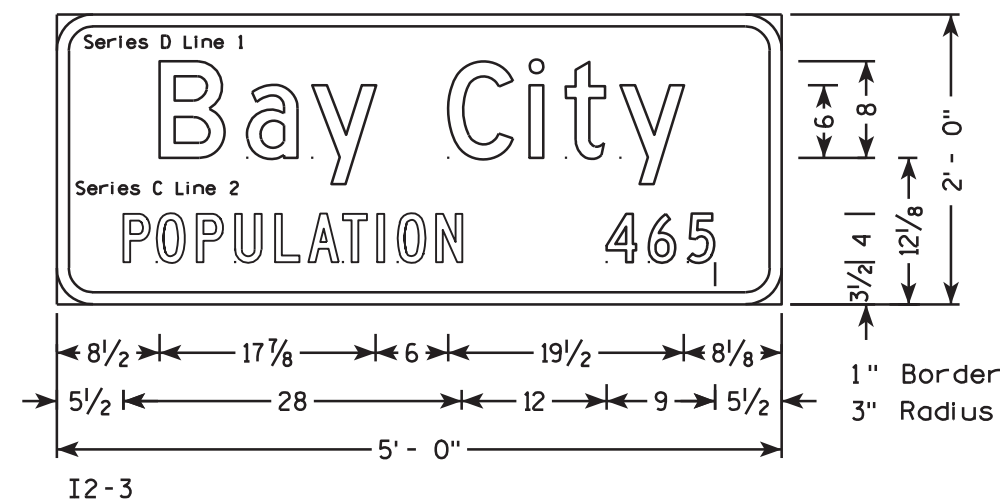
- NOTES**
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - GREEN
Message - WHITE
 3. Message Series - E except as NOTED



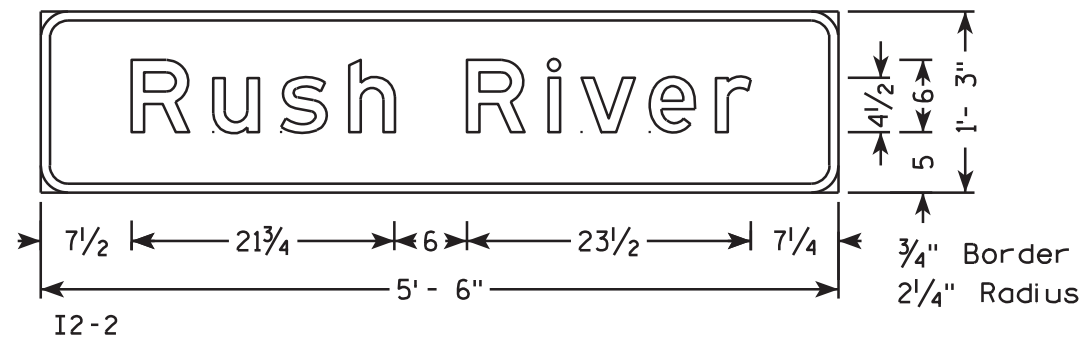
I2-2



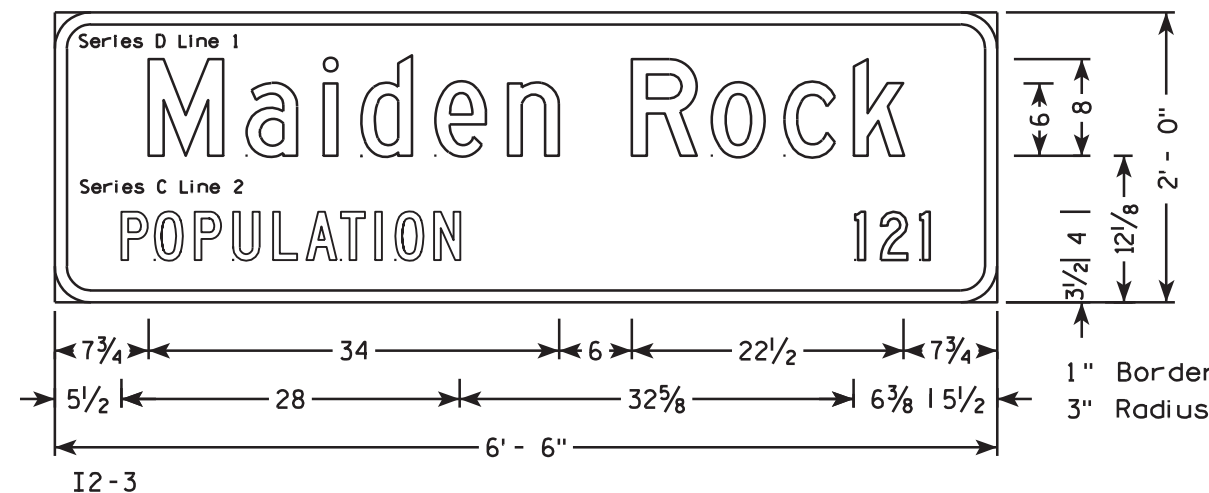
D9-52



I2-3

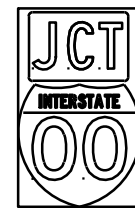


I2-2

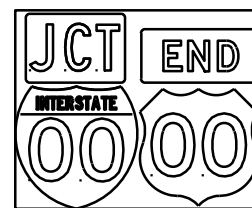


I2-3

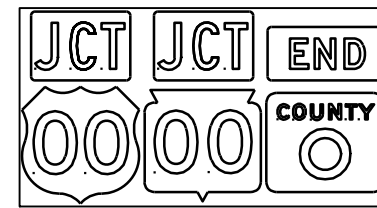
TYPICAL ASSEMBLIES



J1-1



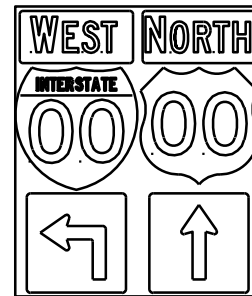
J1-2



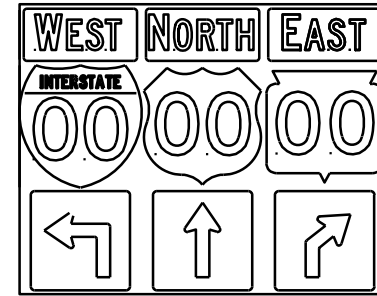
J1-3



J2-1



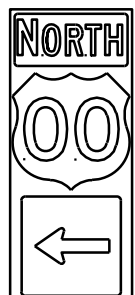
J2-2



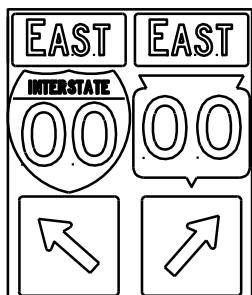
J2-3



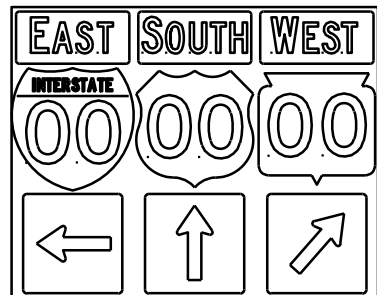
JV



J3-1



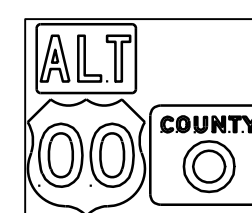
J3-2



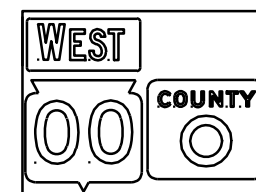
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

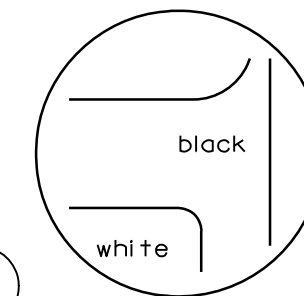
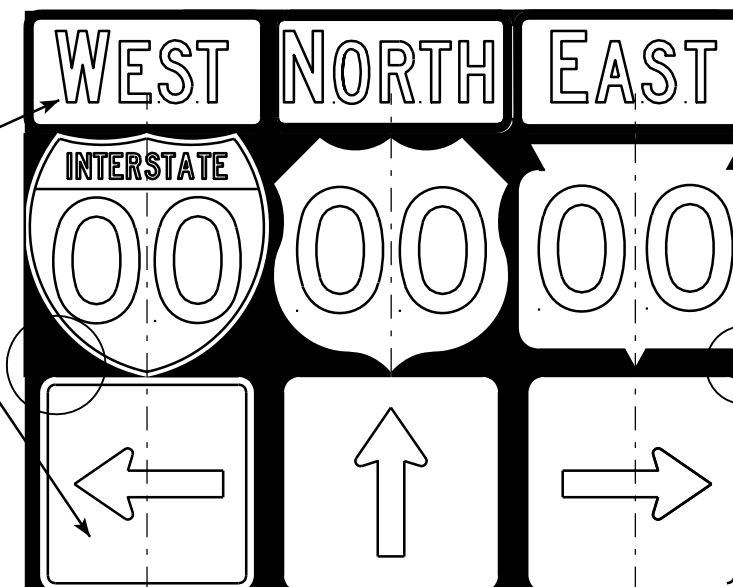
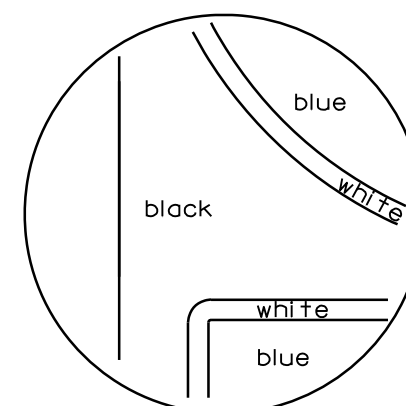


J23-1



J22-1

[blue background with interstate]



[black background]

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

- ## NOTES
- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - Color:
Background - Black Non-reflective
Message - see Note 5
 - Message Series - See Note 5
 - Corners shall be square since base material is plywood.
 - The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
 - Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
 - Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
 - Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
 - Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.

PROJECT NO:

FILE NAME : C:\Users\N\PROJECTS\tr_std\plate\A21S.DGN

PLOT DATE : 21-OCT-2009 09:27

PLOT BY : dit:jph

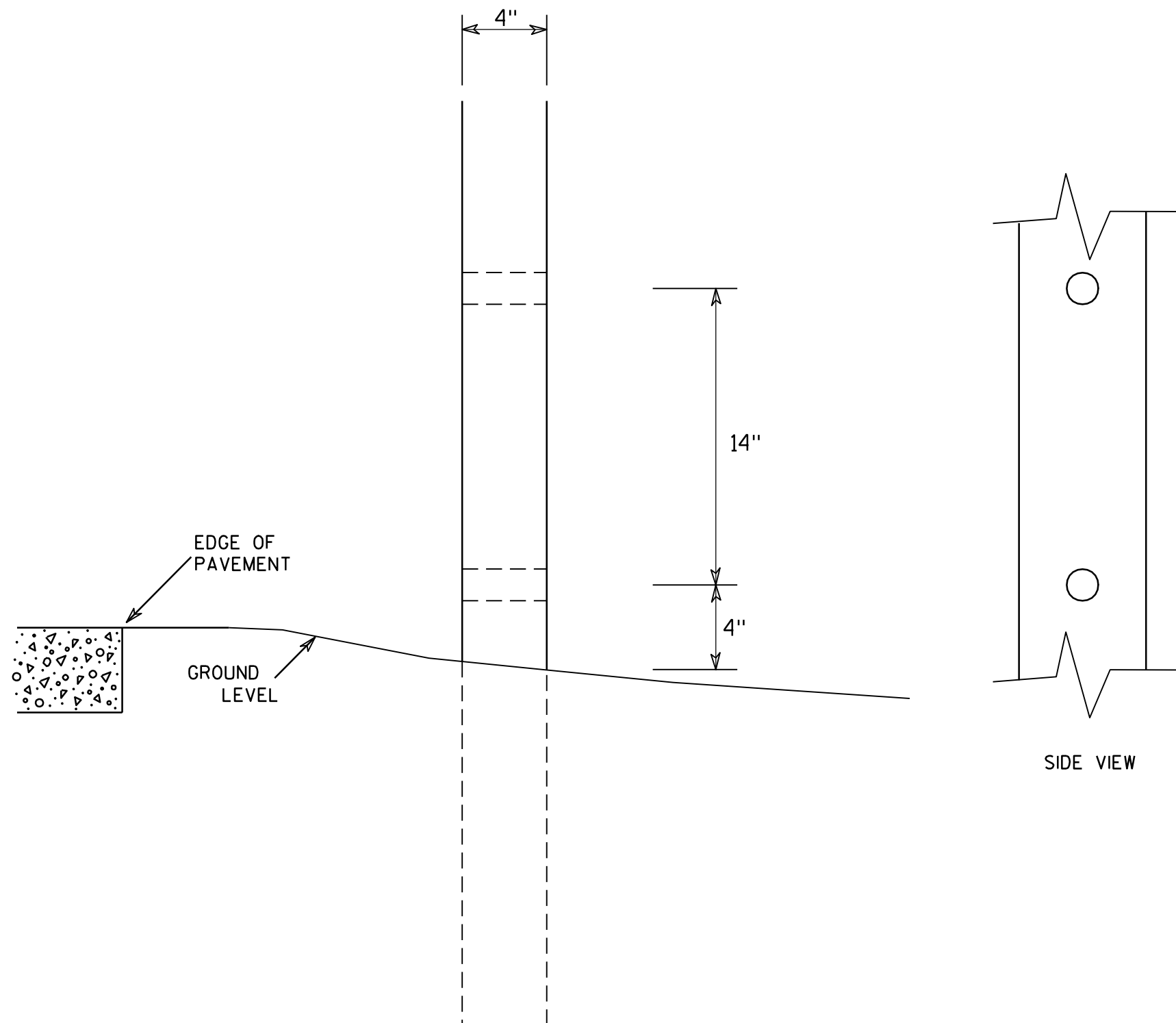
PLOT NAME :

SHEET NO: 205

E

WISDOT/CADDs SHEET 42

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

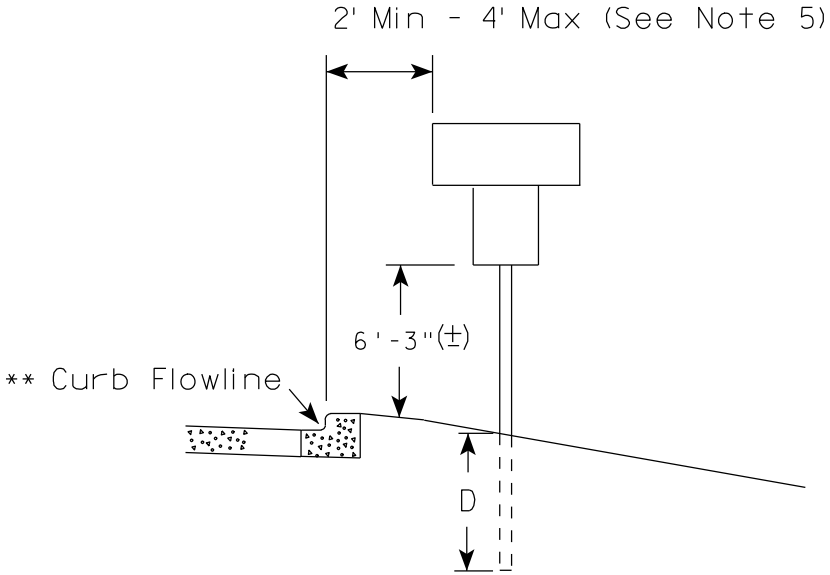
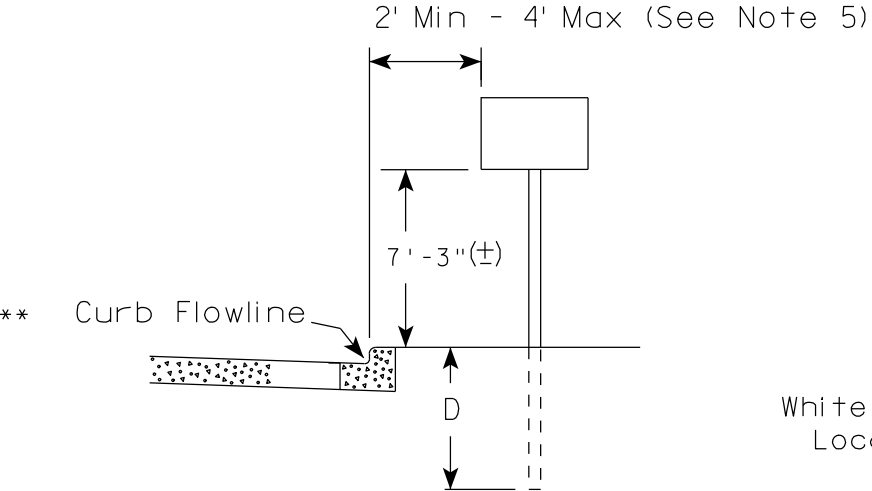
HWY:

COUNTY:

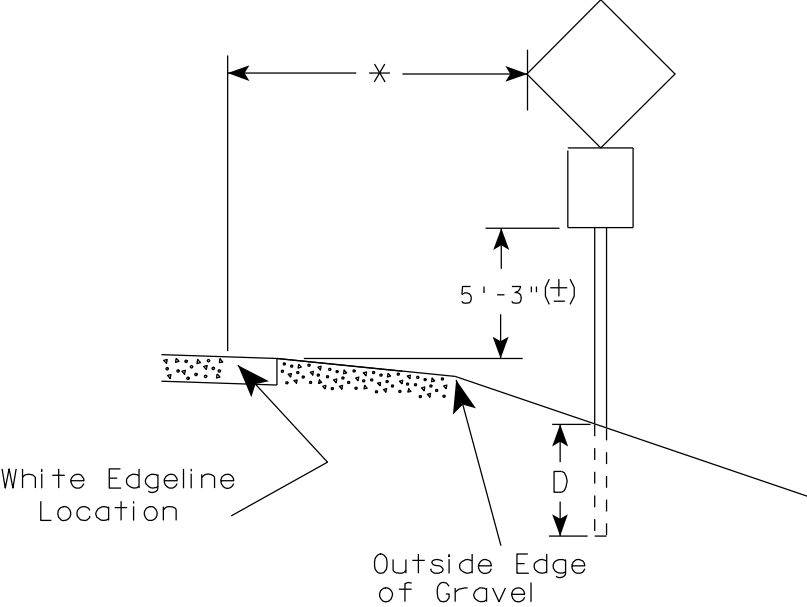
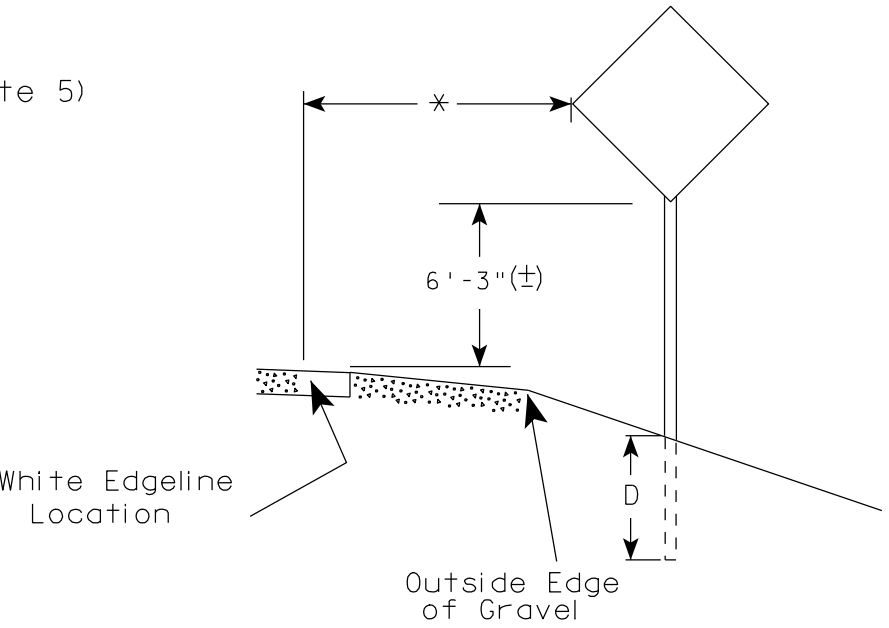
SHEET NO: 206

E

URBAN AREA



RURAL AREA (See Note 2)



✱✱ The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

GENERAL NOTES

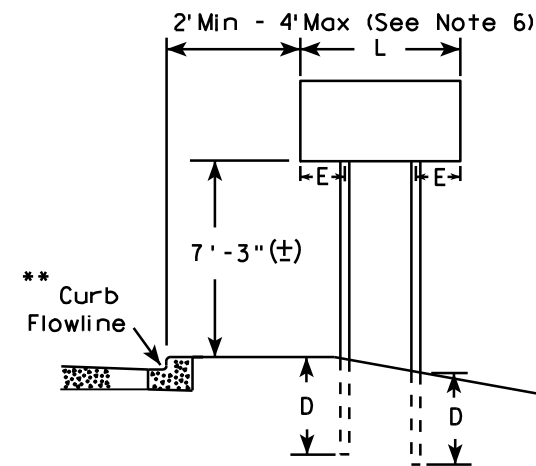
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

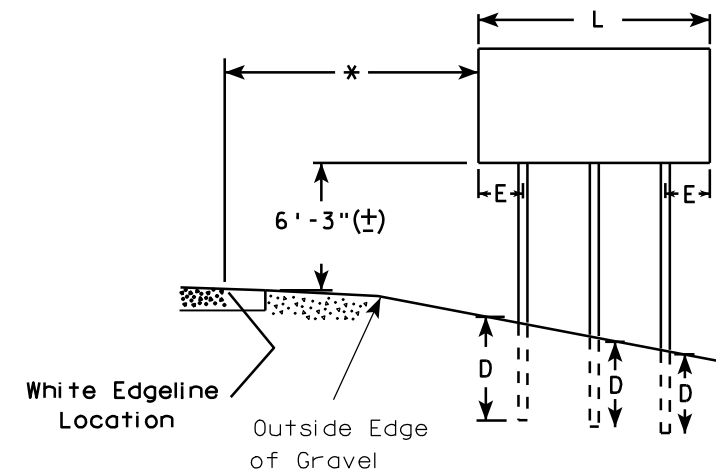
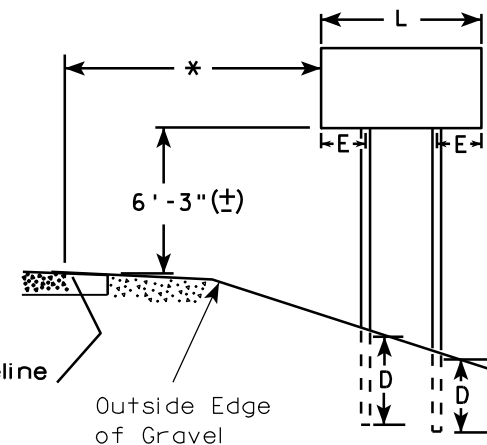
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

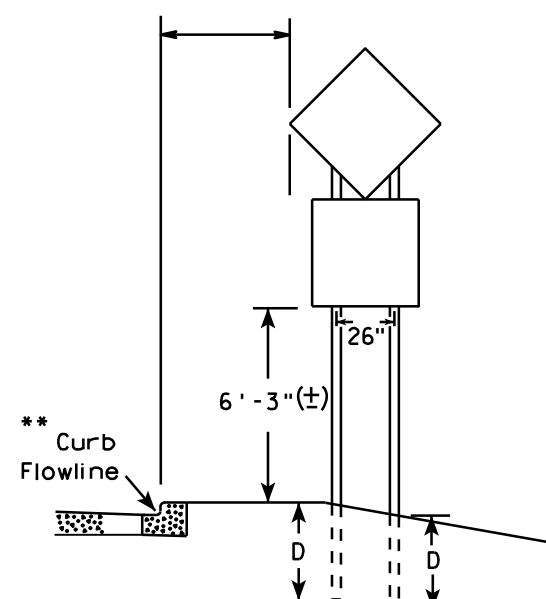
URBAN AREA



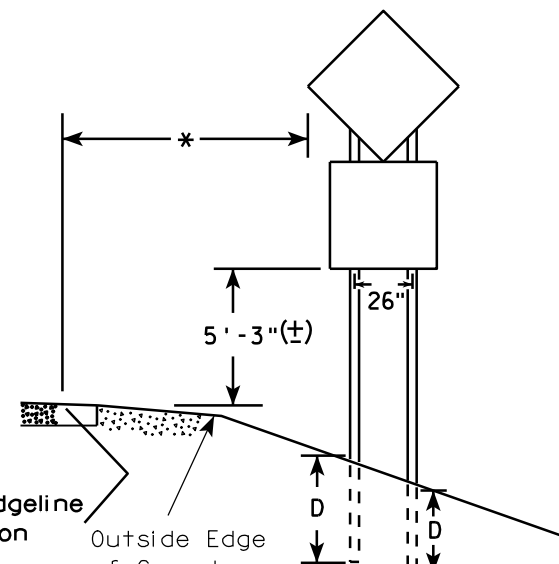
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)

L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)

L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)

L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 9/21/2011 PLATE NO. A4-4.11

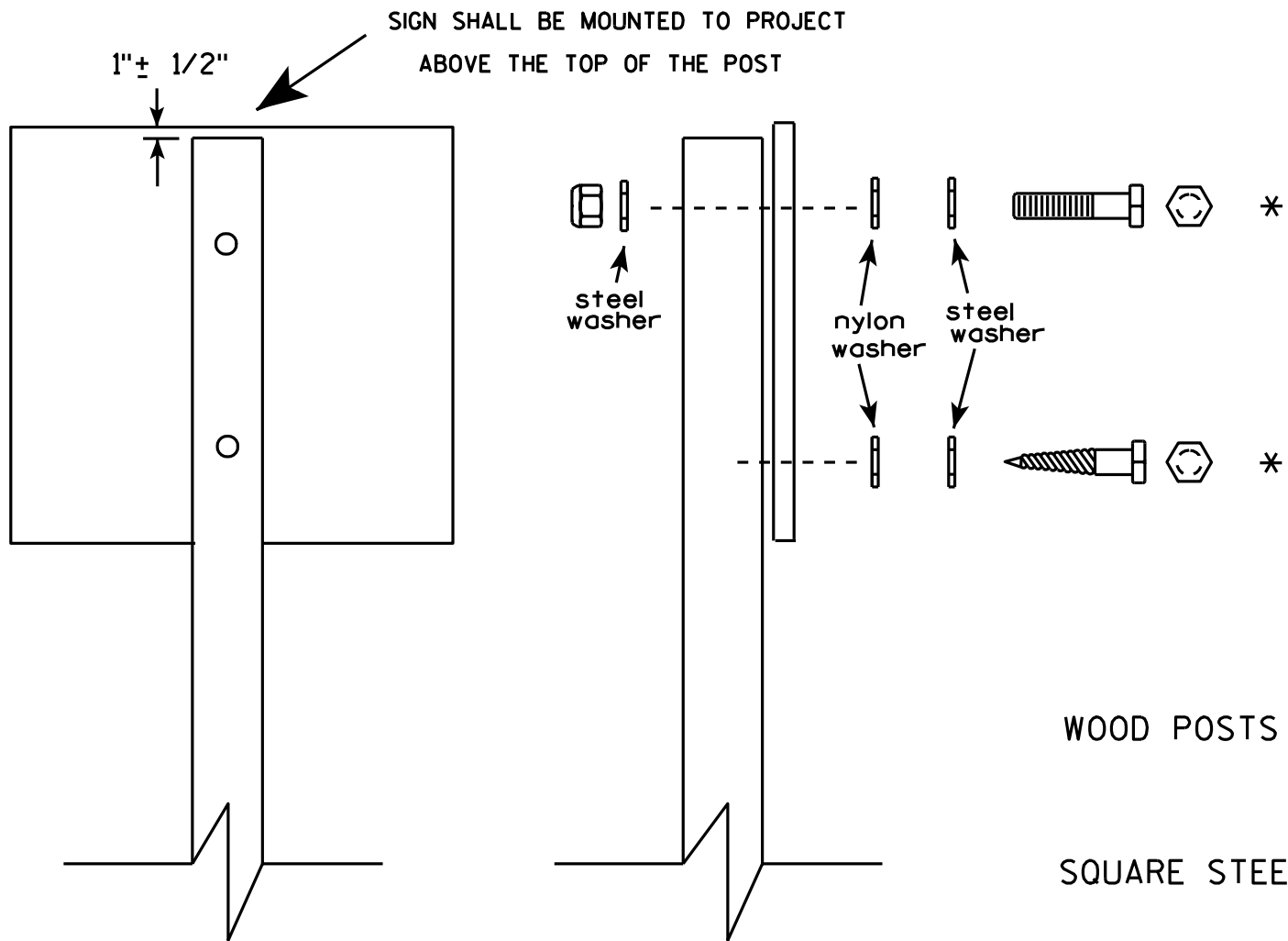
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 208

E

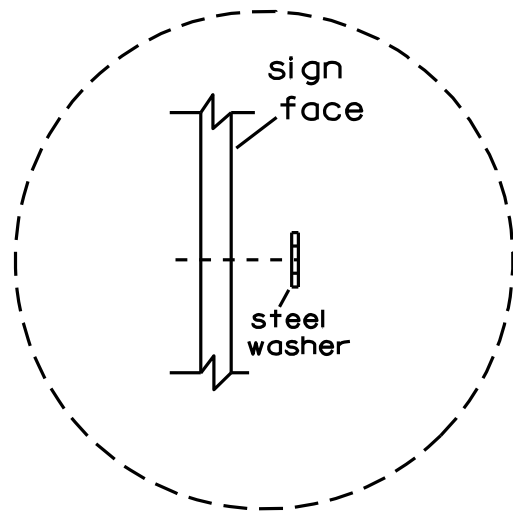


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

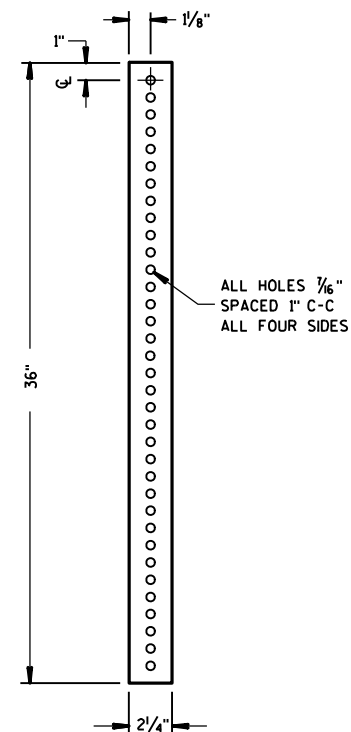


Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



2 1/2" or 2 1/4" TELESPAR TUBE

4" x 12" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELESPAR TUBE

4"

2 1/2"

12"

3 1/2"

10'

LENGTH SHOWN ON MISC. QTY'S

18" DIA PVC BOX-OUT

TELESCOPE PIECES FLUSH AT TOP

36"

13"

18"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/2" SQUARE X 36"

3/8" ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

2" STEEL TUBULAR SQUARE UPPER SECTION

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

LENGTH SHOWN ON MISC. QTY'S

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

TELESCOPE PIECES FLUSH AT TOP

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

12"

18"

36"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:

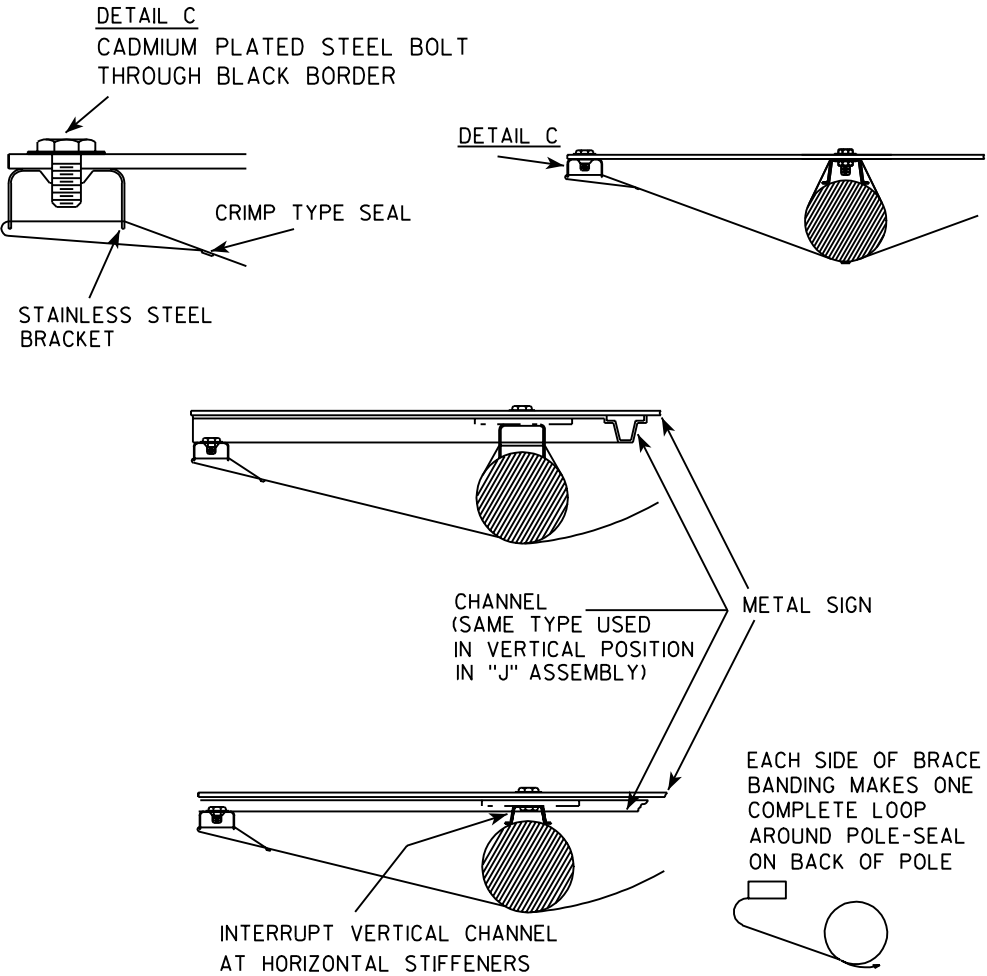
HWY:

COUNTY:

SHEET NO: 210

E

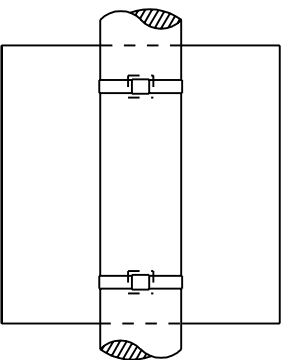
BRACE BANDING



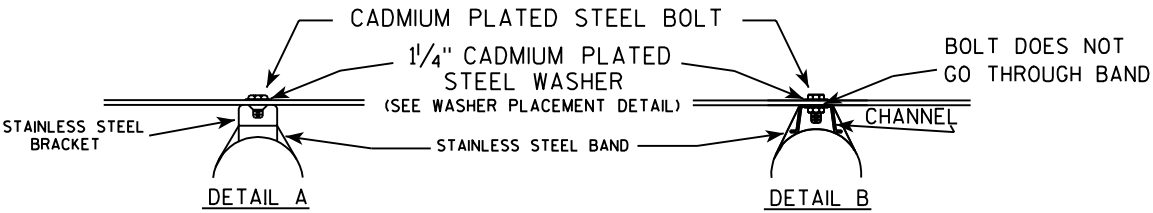
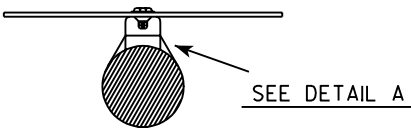
BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

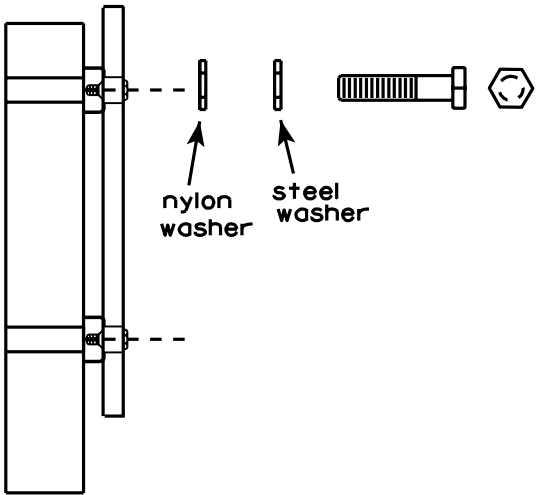
SINGLE SIGN



BRACKET BANDING

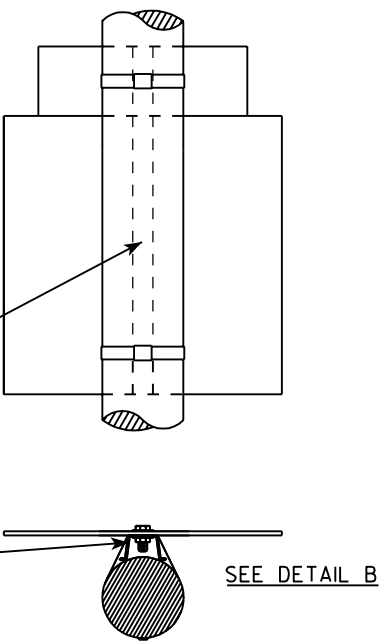


WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

"J" ASSEMBLY



GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

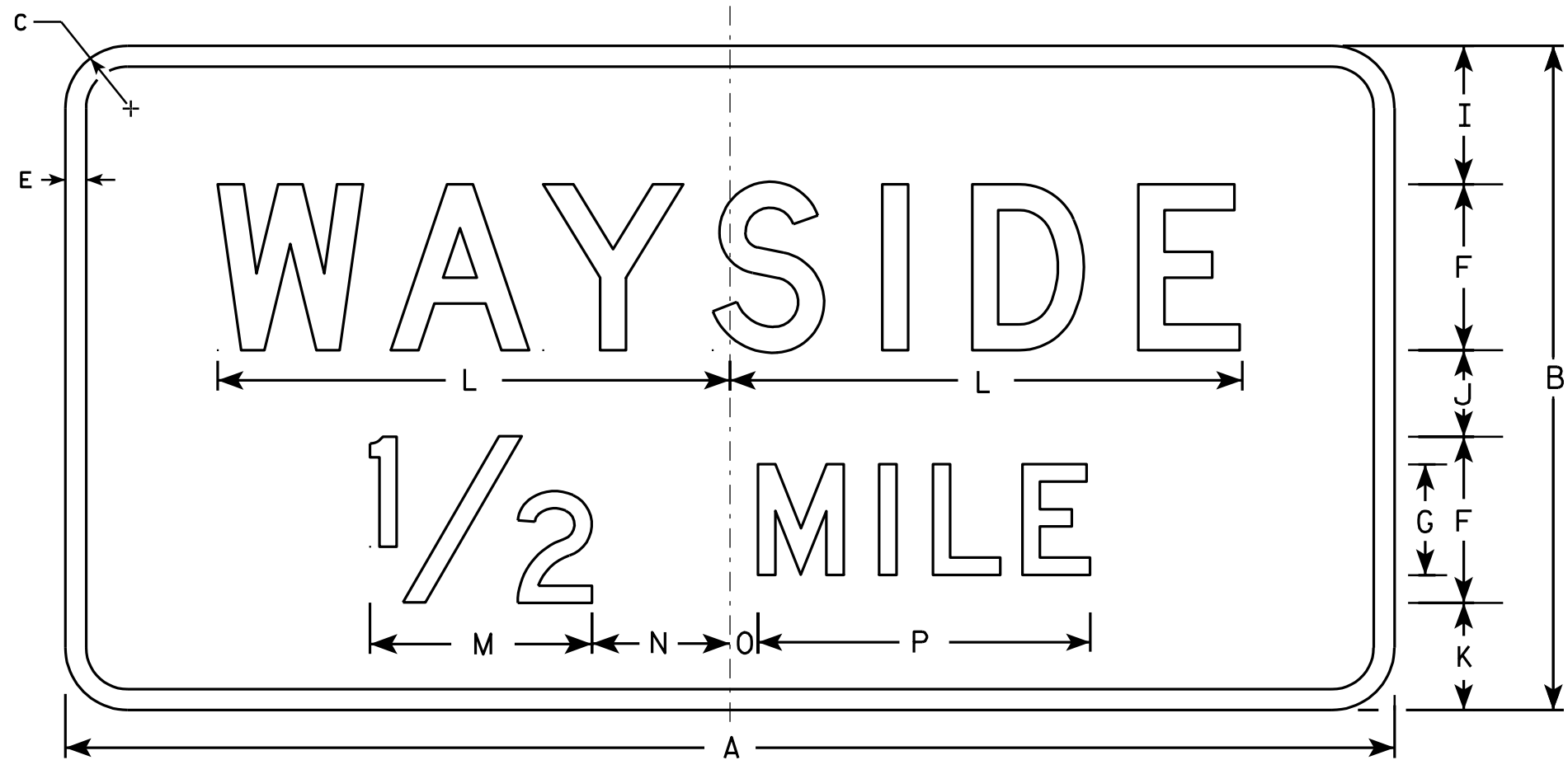
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D5-61

Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
1																												
2	48	24	2 1/4		3/4	6	4	6	5	3 1/8	3 7/8	18 1/2	8	5	1	12											8.0	0.72
3																												
4	78	42	3		1	10	7	10 1/2	8 3/4	5 3/4	7	30 1/8	14	8 3/4	1 3/4	21											22.8	2.05
5																												

STATE PROJECT NUMBER:

STANDARD SIGN
D5-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Charles J. Spang
for State Traffic Engineer

DATE 1/09/02
PLATE NO. D5-61.9

SHEET NO: 212

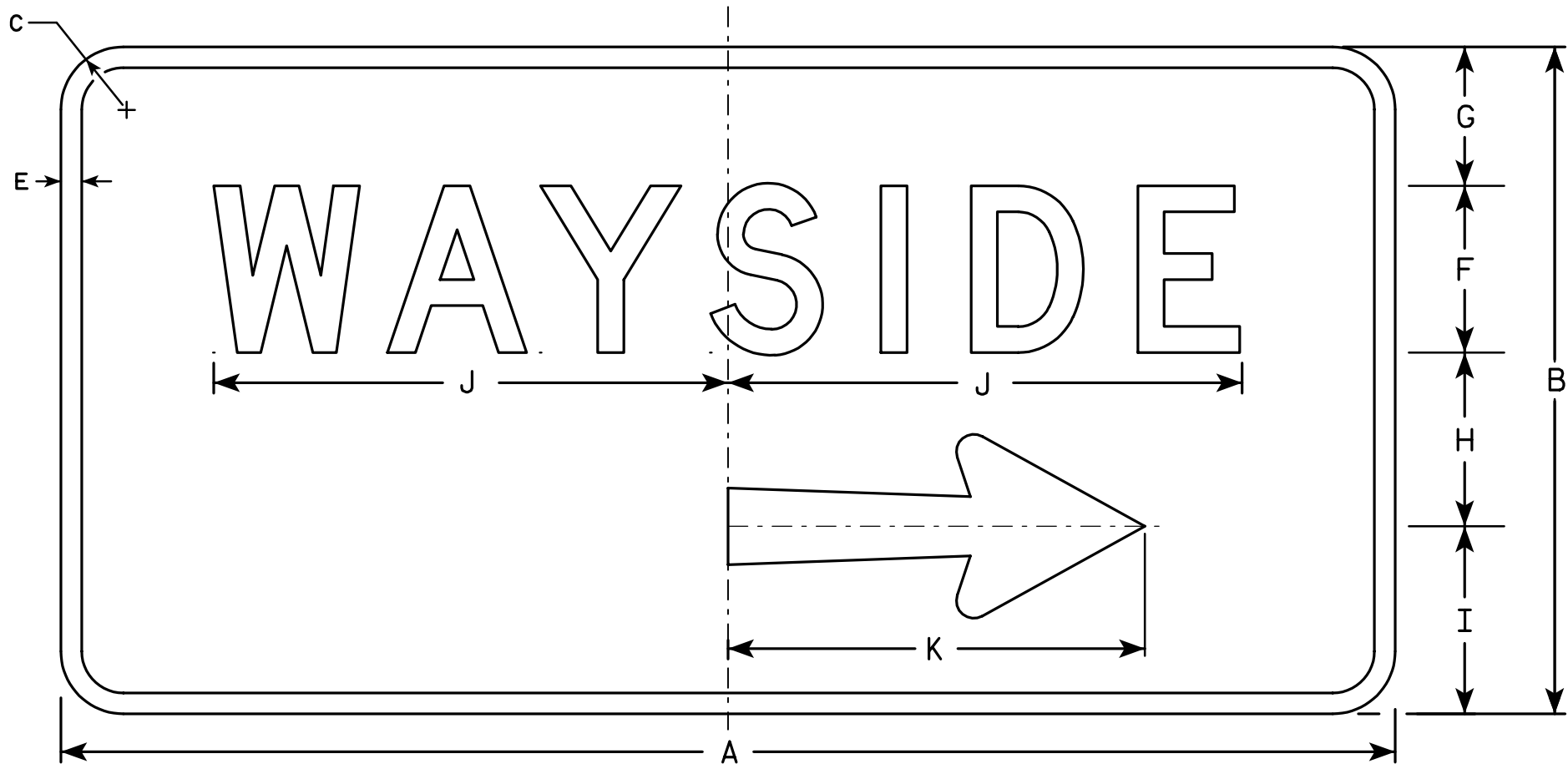
E

- NOTES**
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - Color:
Background - Blue
Message - White
 - Message Series - D
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 14, 10,



D5-62R

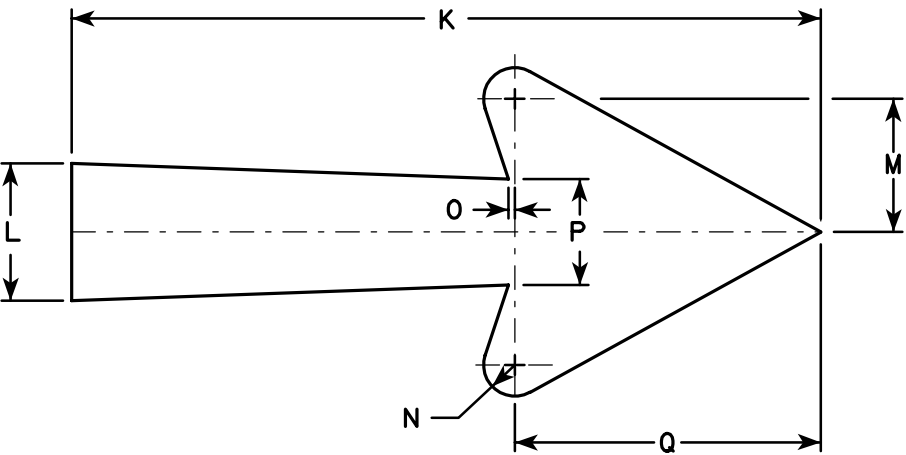
Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ₂
1																												
2	48	24	2 ¼		¾	6	4	6 ¼	6 ¾	18 ½	15	2 ¾	3 ⅛	⅝	⅛	2 ⅛	6 ⅛										8.0	0.72
3																												
4	78	42	3		1	10	8 ¾	11	12 ¼	30 ⅛	26 ¼	4 ¾	4 ⅝	1 ⅛	¼	3 ¾	10 ¾										22.8	2.05
5																												

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Blue
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-62L is the same as D5-62R except that the arrow is rotated 180° about the vertical center line.



Arrow Detail

STANDARD SIGN
D5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

DATE 1/09/02

PLATE NO. D5-62.10

STATE PROJECT NUMBER:

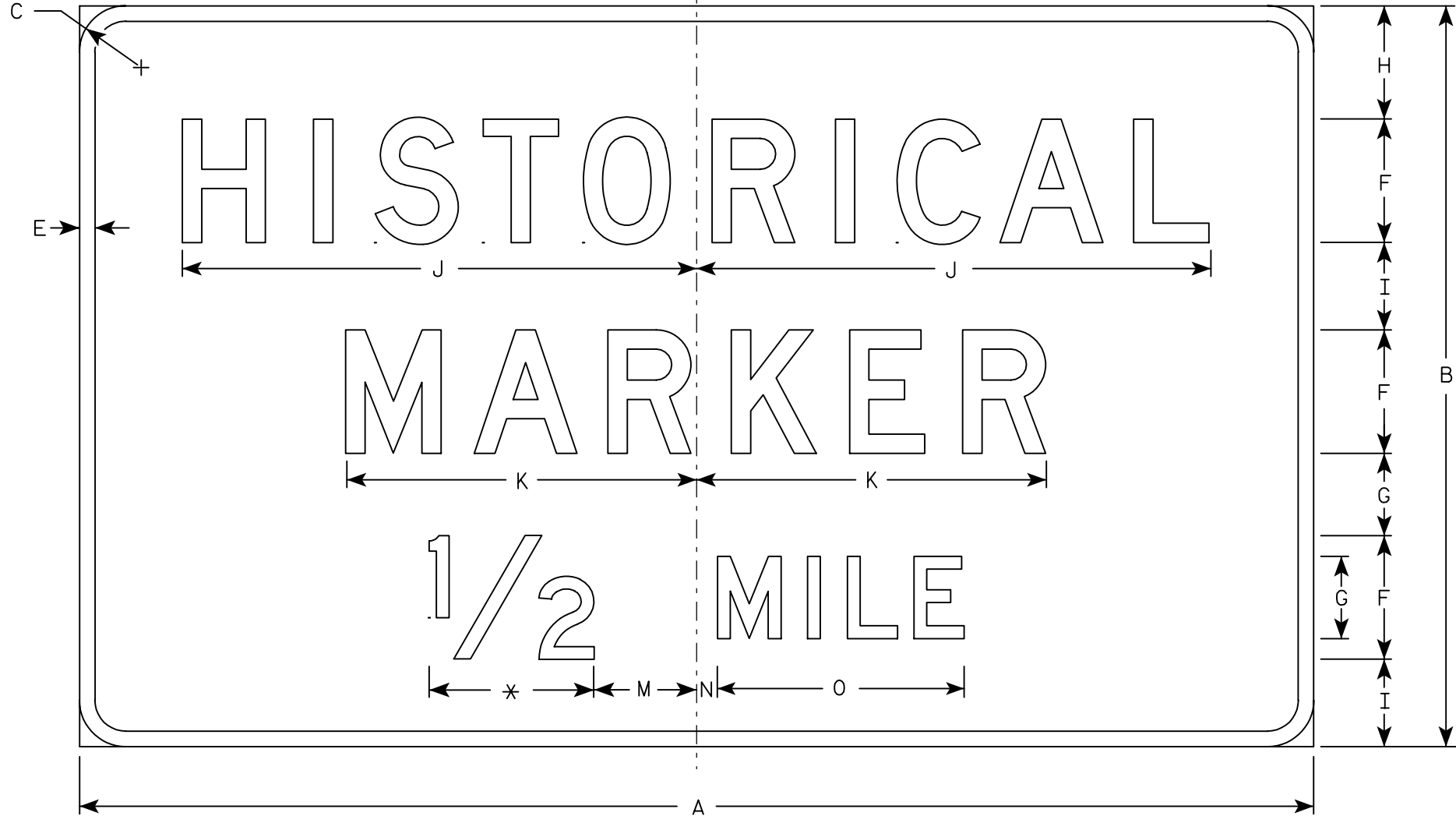
SHEET NO: 213

E

50, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6



D5-63 * See Note 5

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	4	5 1/2	4 1/4	25	17		5	1	12												15.0	1.35
3																												
4																												
5																												

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\plate\D563.DGN

PLOT DATE : 09-JAN-2002 13:18

ORG DATE : 3/23/99

Originator : Don Kluever

SHEET NO: 214

E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

STANDARD SIGN
D5-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

DATE 3/23/99

PLATE NO. D5-63.9

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10.



D5-64R

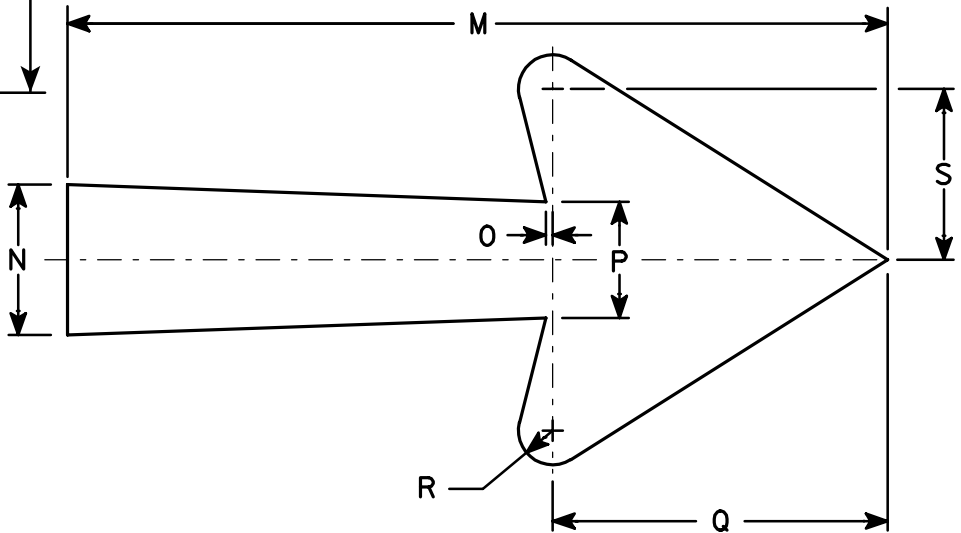
Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1																												
2	60	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	25	17	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								15.0	1.35
3																												
4																												
5																												

NOTES

1. Sign Is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-64L is the same as D5-64R except the arrow is reversed.



Arrow Detail

STANDARD SIGN
D5-64

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Christa J. Sperry*
for State Traffic Engineer
DATE 1/09/02 PLATE NO. D5-64.5

STATE PROJECT NUMBER:

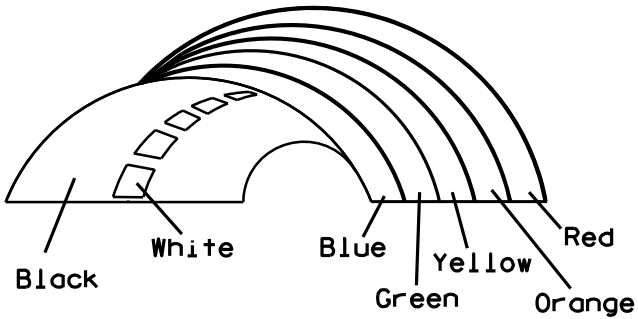
SHEET NO: 215

E



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 216

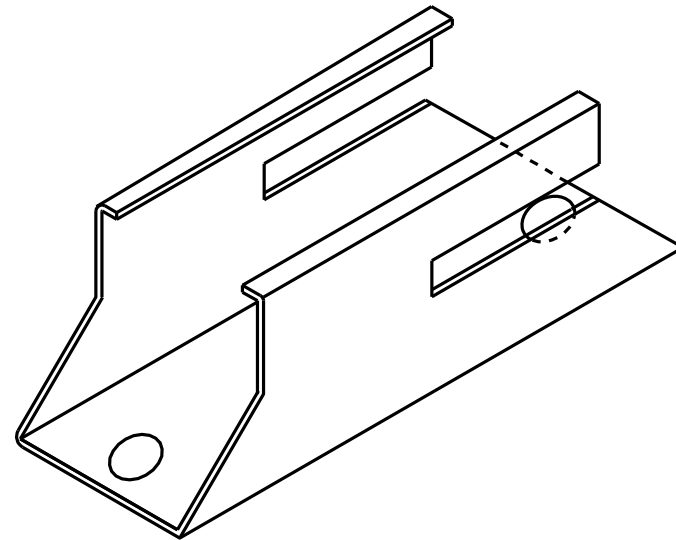
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

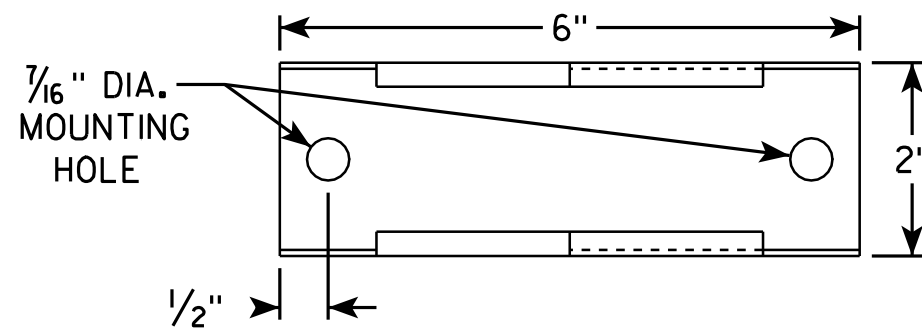
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 4/27/11
PLATE NO. I55-56.3

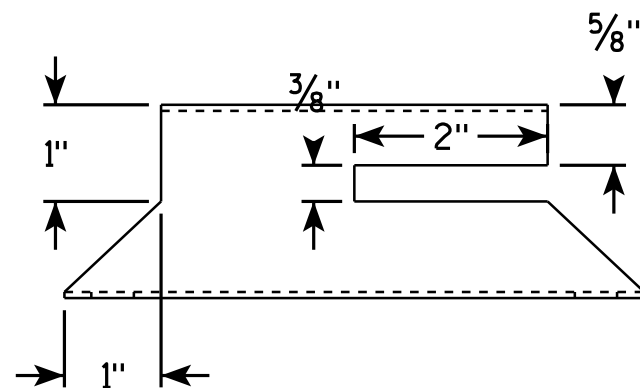
ISOMETRIC VIEW



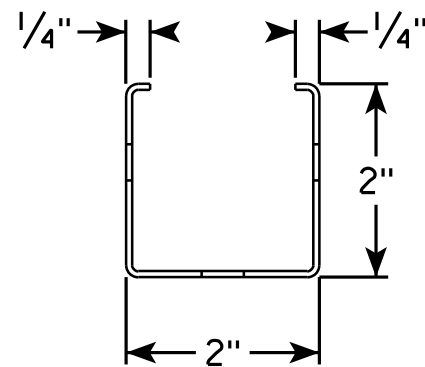
TOP VIEW



SIDE VIEW



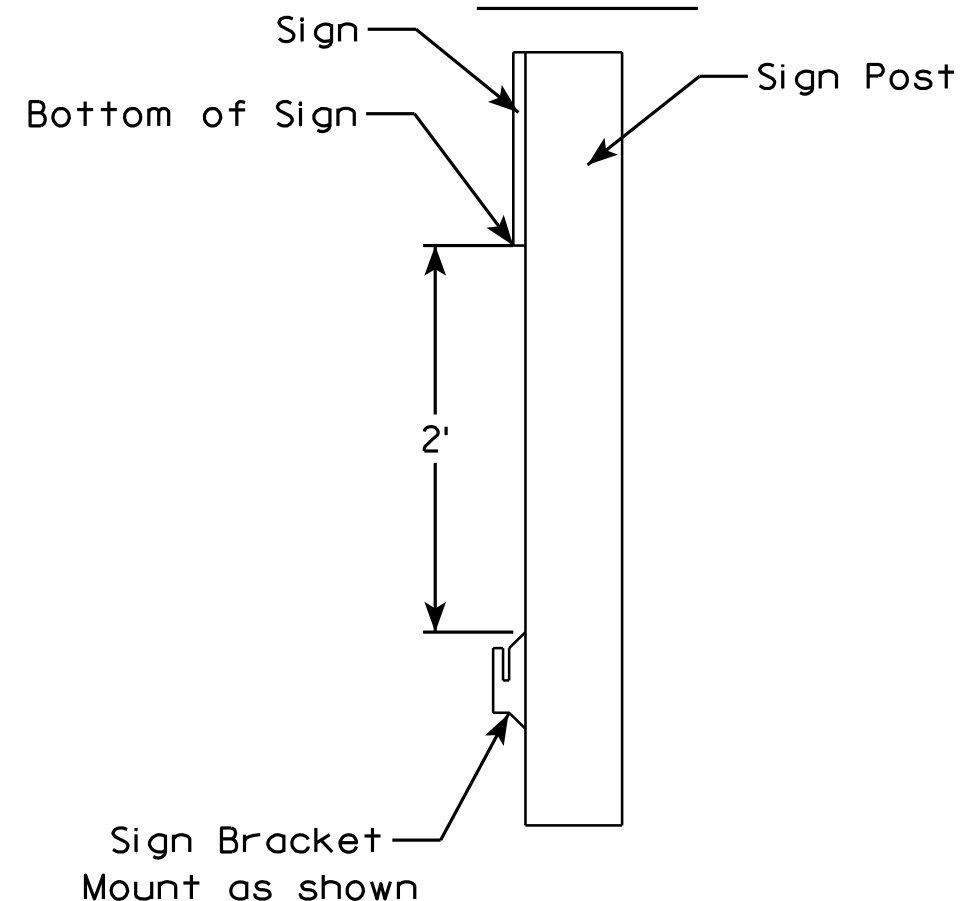
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

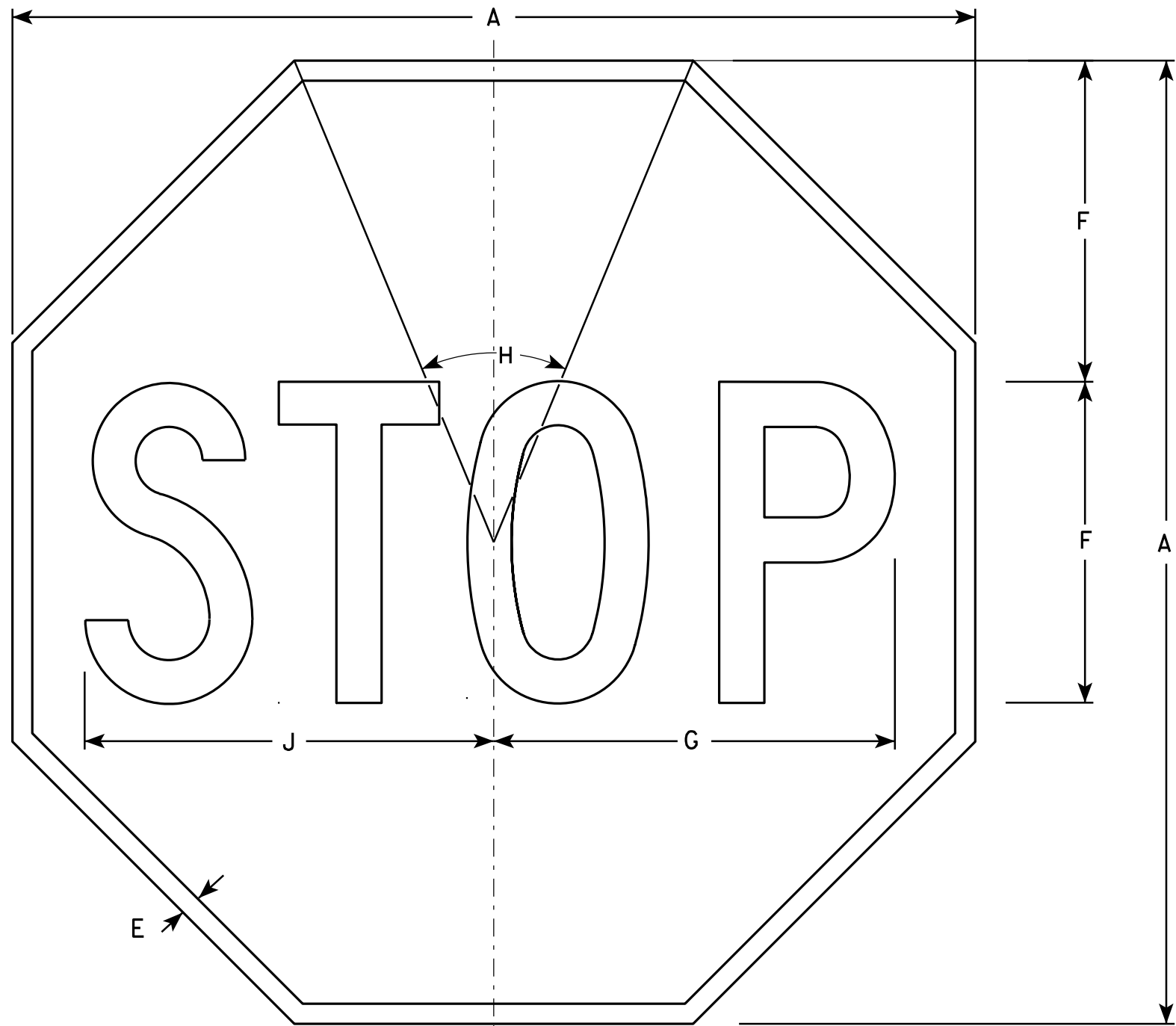
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 217

E



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				$\frac{3}{8}$	8	10	45°		10 $\frac{1}{4}$																	3.31
2S	30				$\frac{5}{8}$	10	12 $\frac{1}{2}$	45°		12 $\frac{3}{4}$																	5.18
2M	36				$\frac{3}{4}$	12	15	45°		15 $\frac{3}{8}$																	7.46
3	36				$\frac{3}{4}$	12	15	45°		15 $\frac{3}{8}$																	7.46
4	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25
5	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25
6	18				$\frac{3}{8}$	6	7 $\frac{3}{4}$	45°		7 $\frac{3}{4}$																	1.86
7	12				$\frac{1}{4}$	4	5	45°		5 $\frac{1}{8}$																	0.78

STANDARD SIGN
R1-1

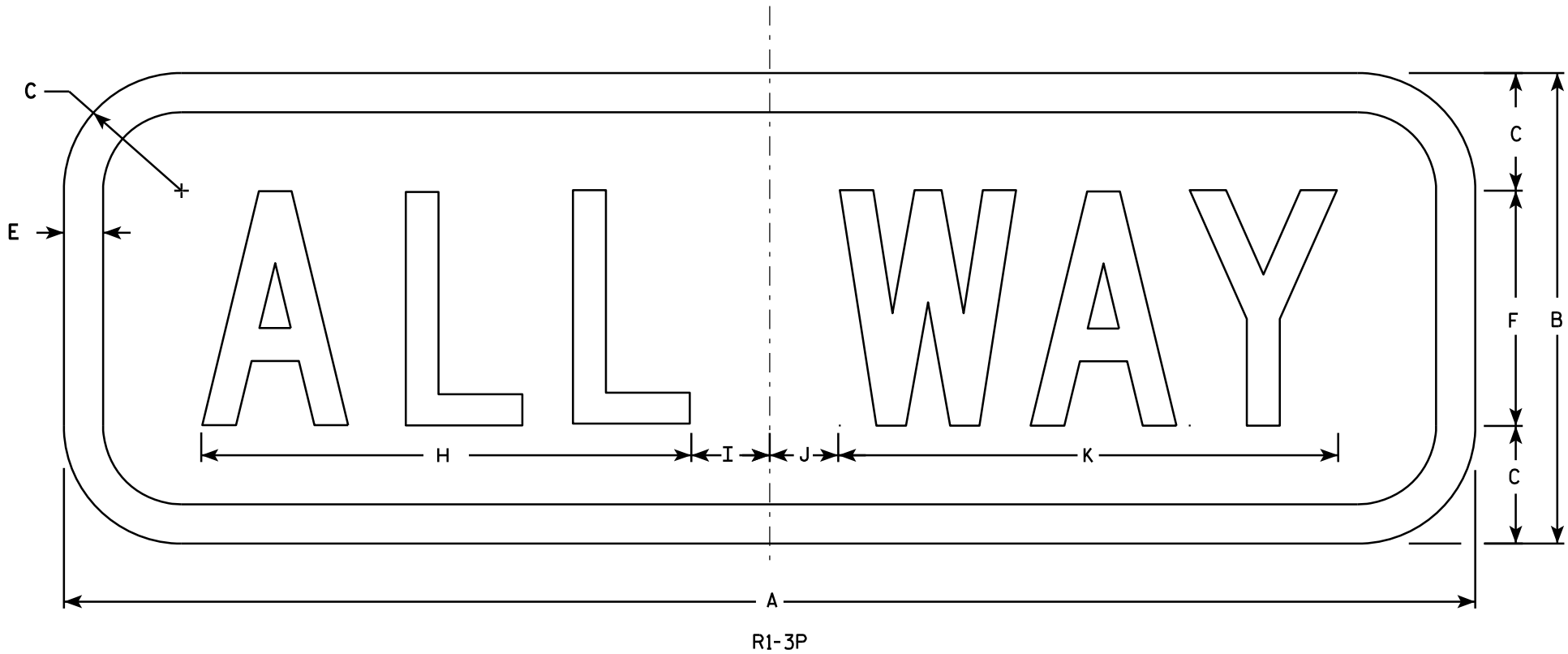
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



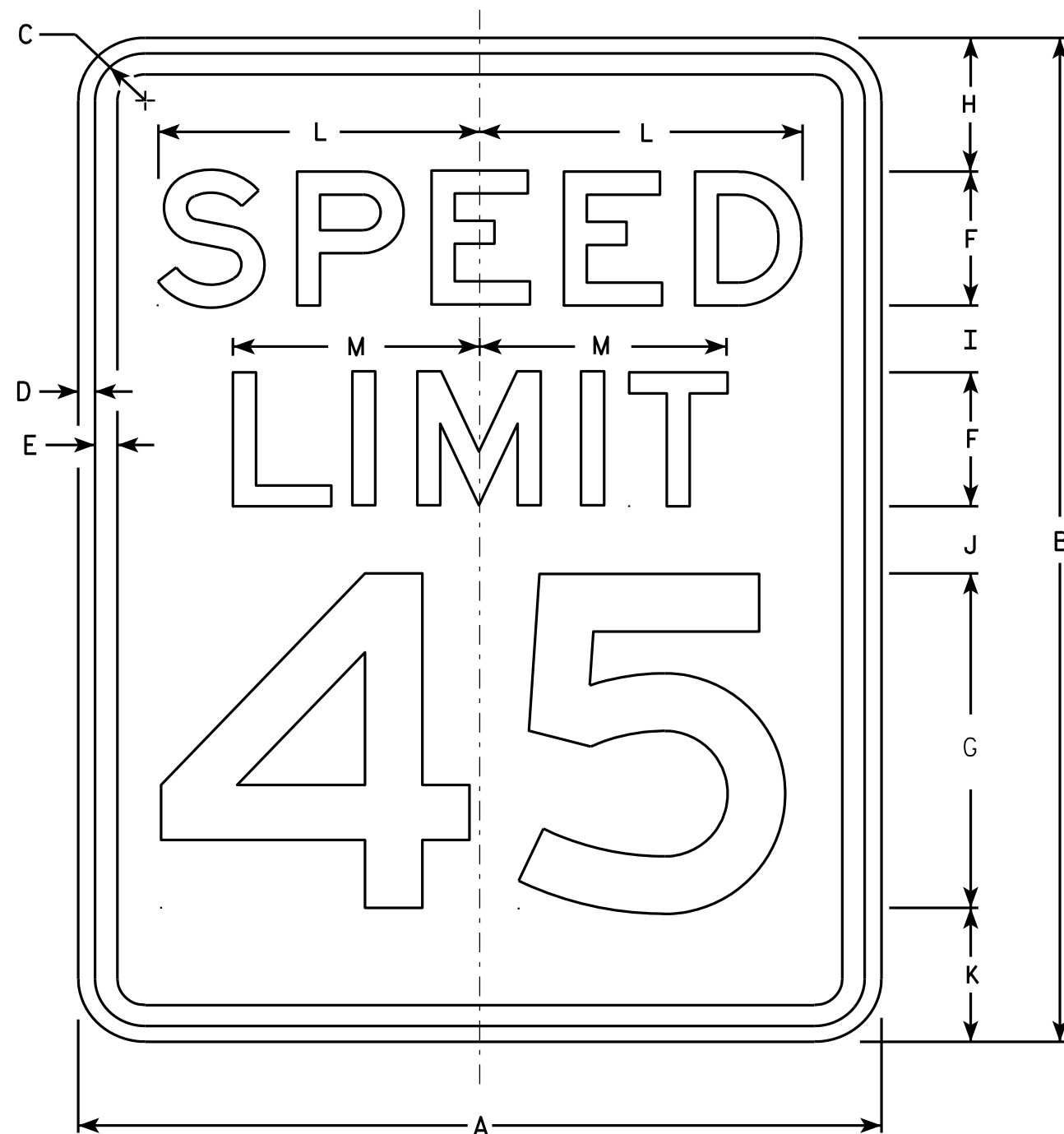
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
4																											
5																											

STANDARD SIGN
R1 - 3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-3P.1



R2-1

NOTES

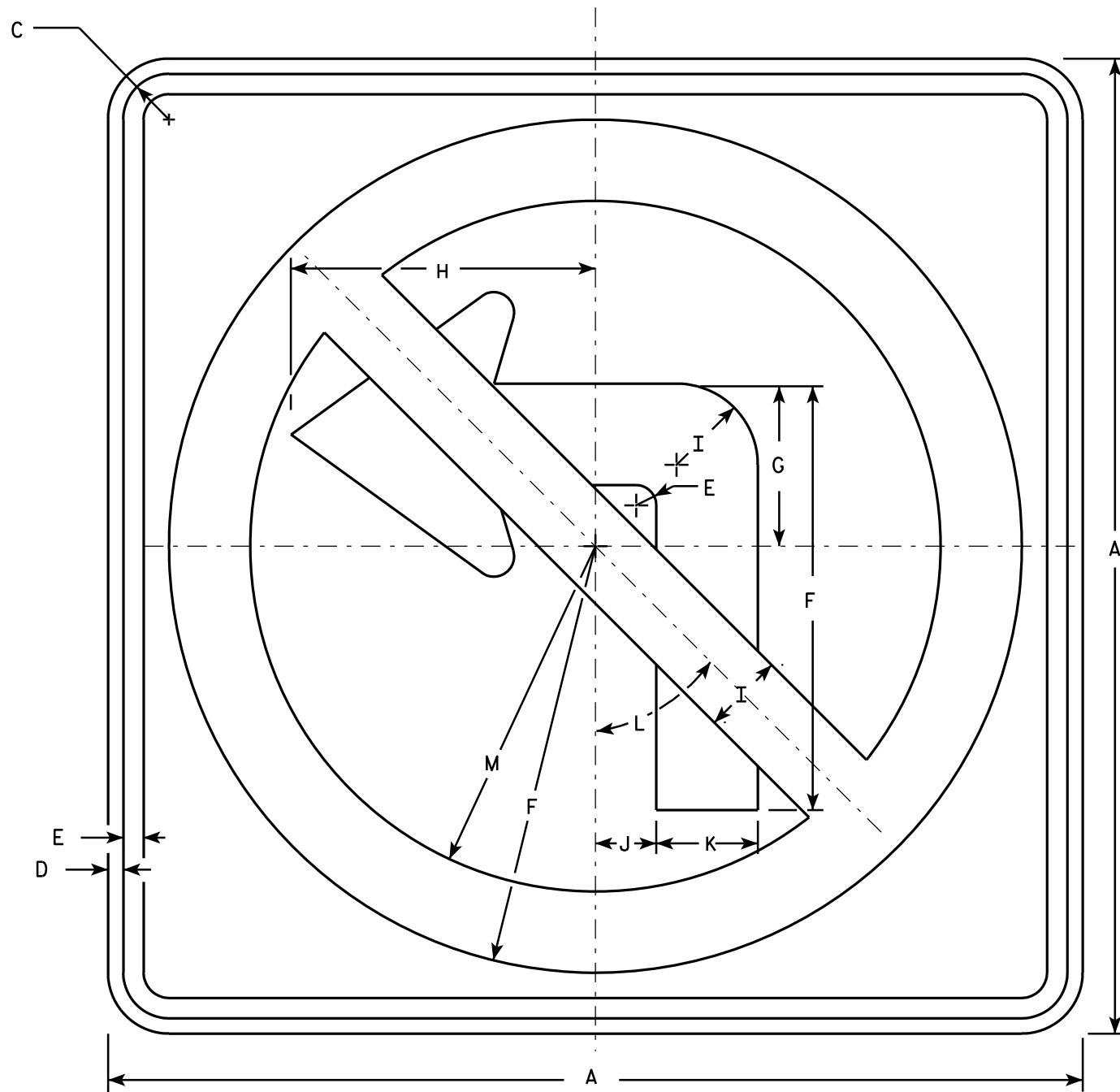
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

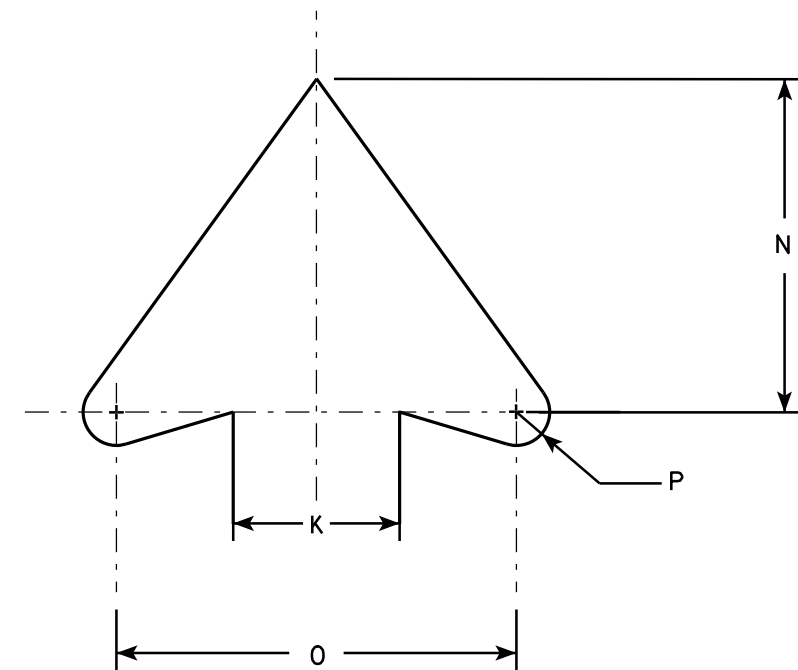
PROJECT NO: HWY: COUNTY: SHEET NO: 220 E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1 1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1 1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

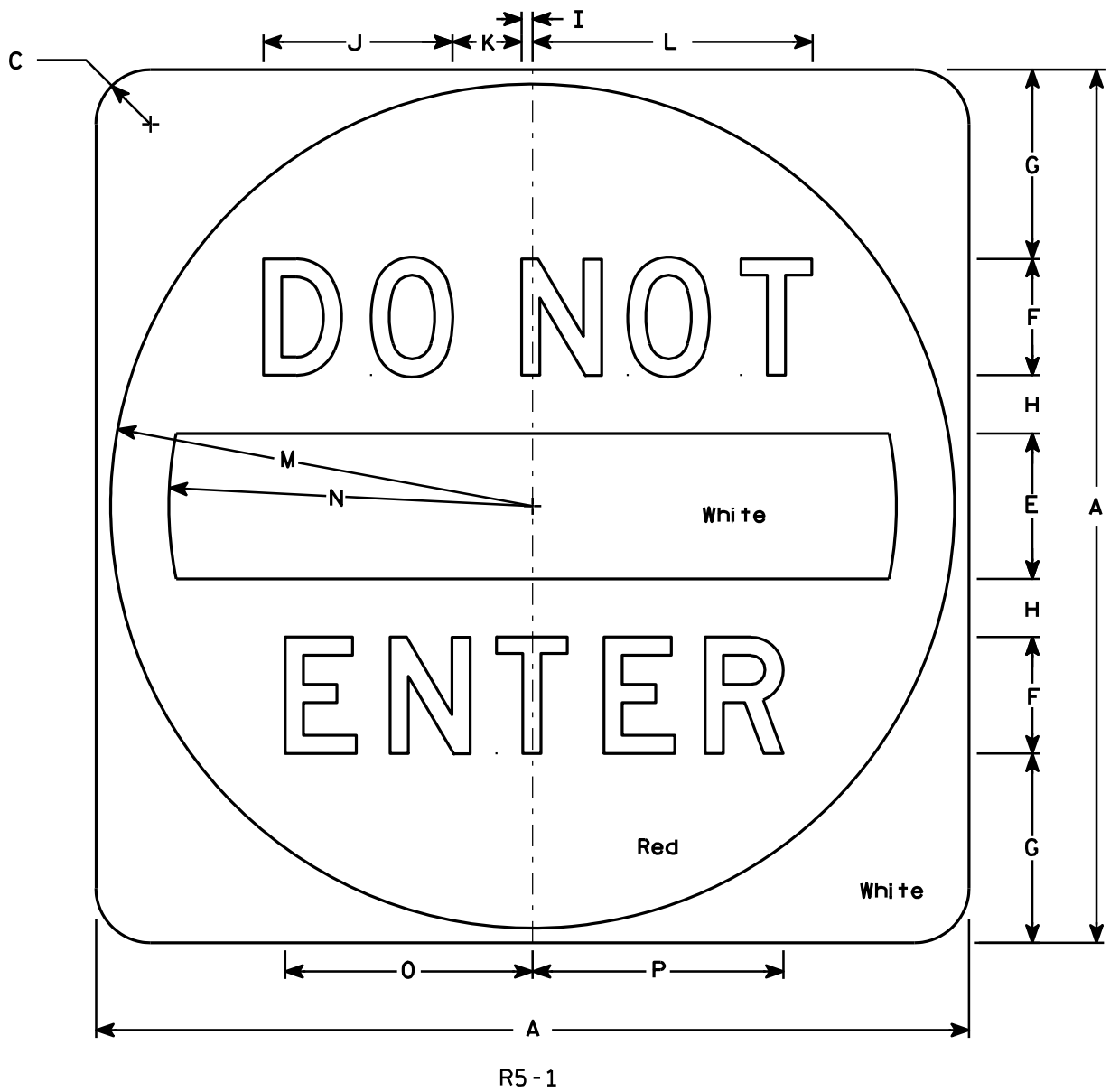
DATE 12/08/10 PLATE NO. R3-2.10

SHEET NO: 221

E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - See detail
 - Message - White - Type H Reflective
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.26
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

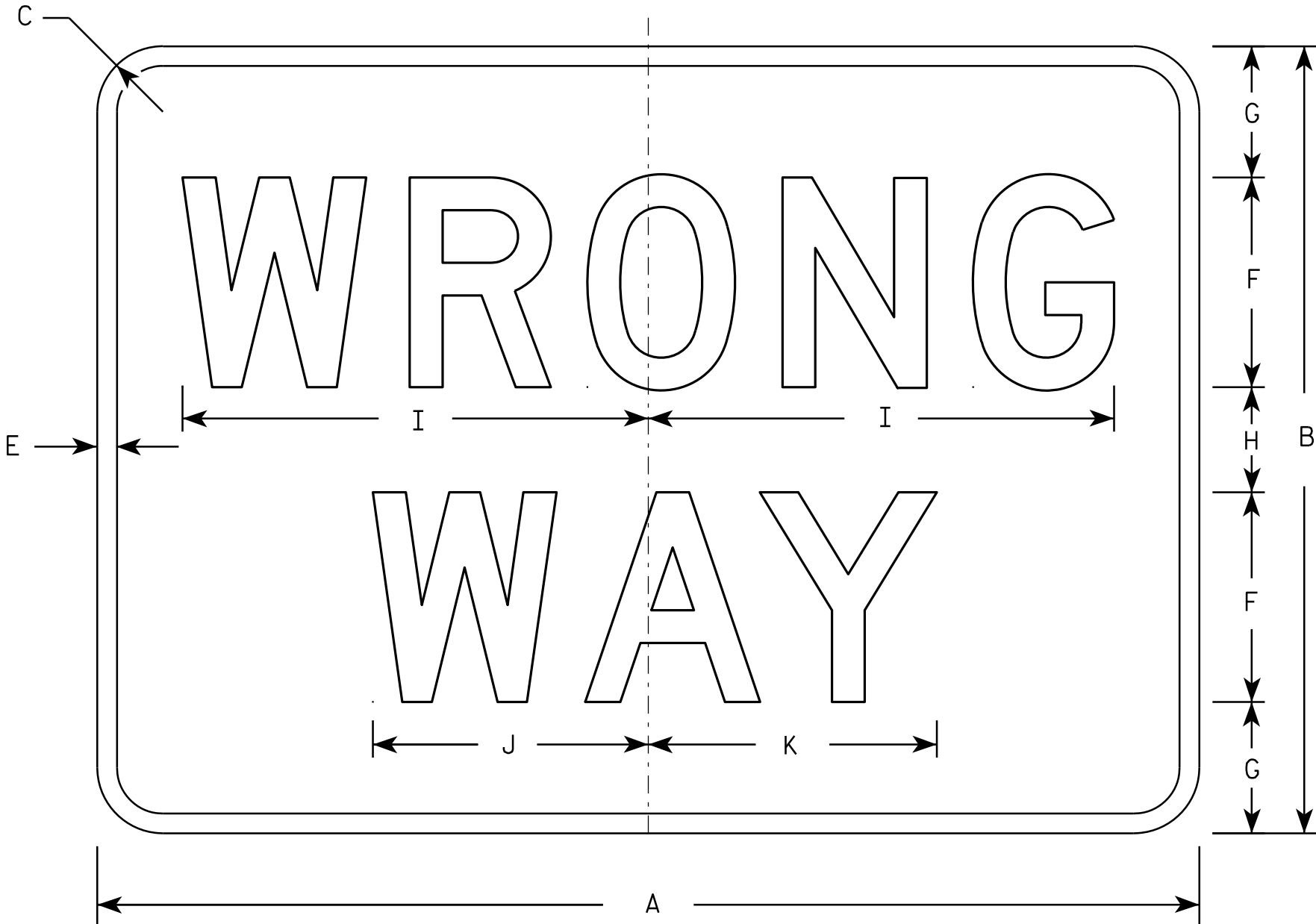
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 222

E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2



R55-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/2	3/8	3/8	4	3	2	1 1/2	2	2 1/8	6 7/8	7	7 1/4													2.25
2M	18		1 1/2	3/8	3/8	4	3	2	1 1/2	2	2 1/8	6 7/8	7	7 1/4													2.25
3																											
4																											
5																											

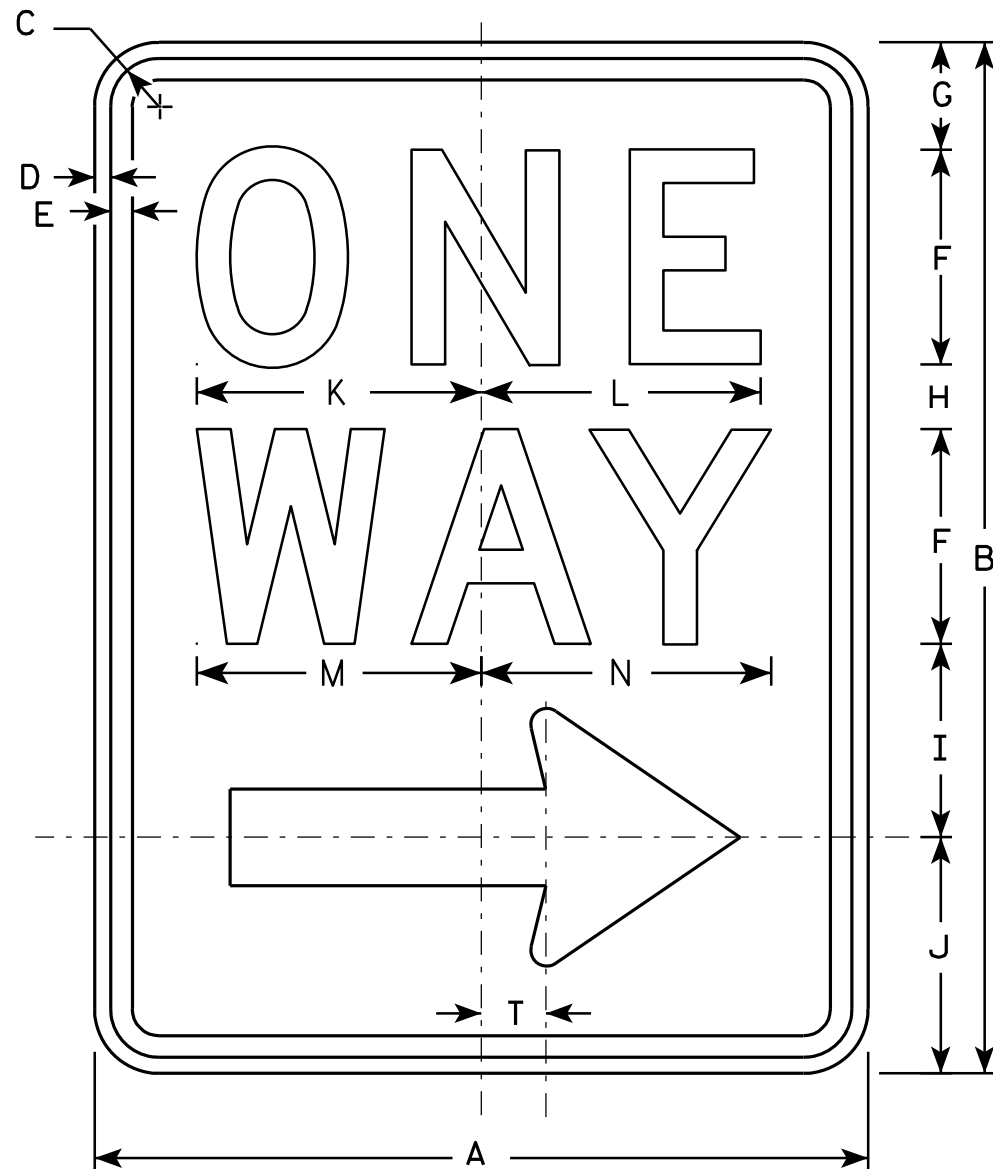
STANDARD SIGN
R55-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R55-51.5

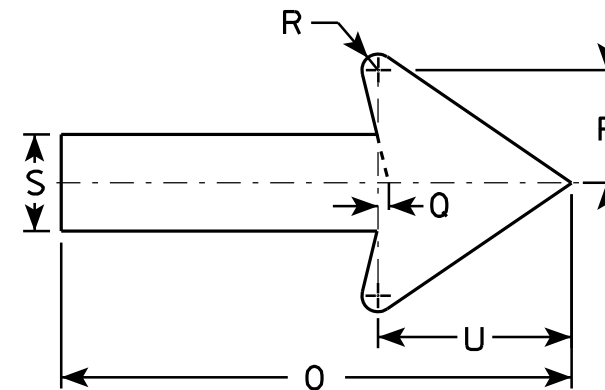
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 224	E
-------------	------	---------	---------------	---



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

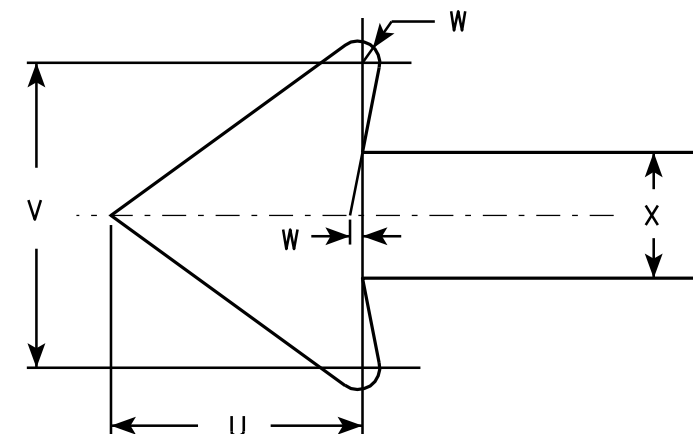
PROJECT NO: HWY: COUNTY: SHEET NO: 225



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

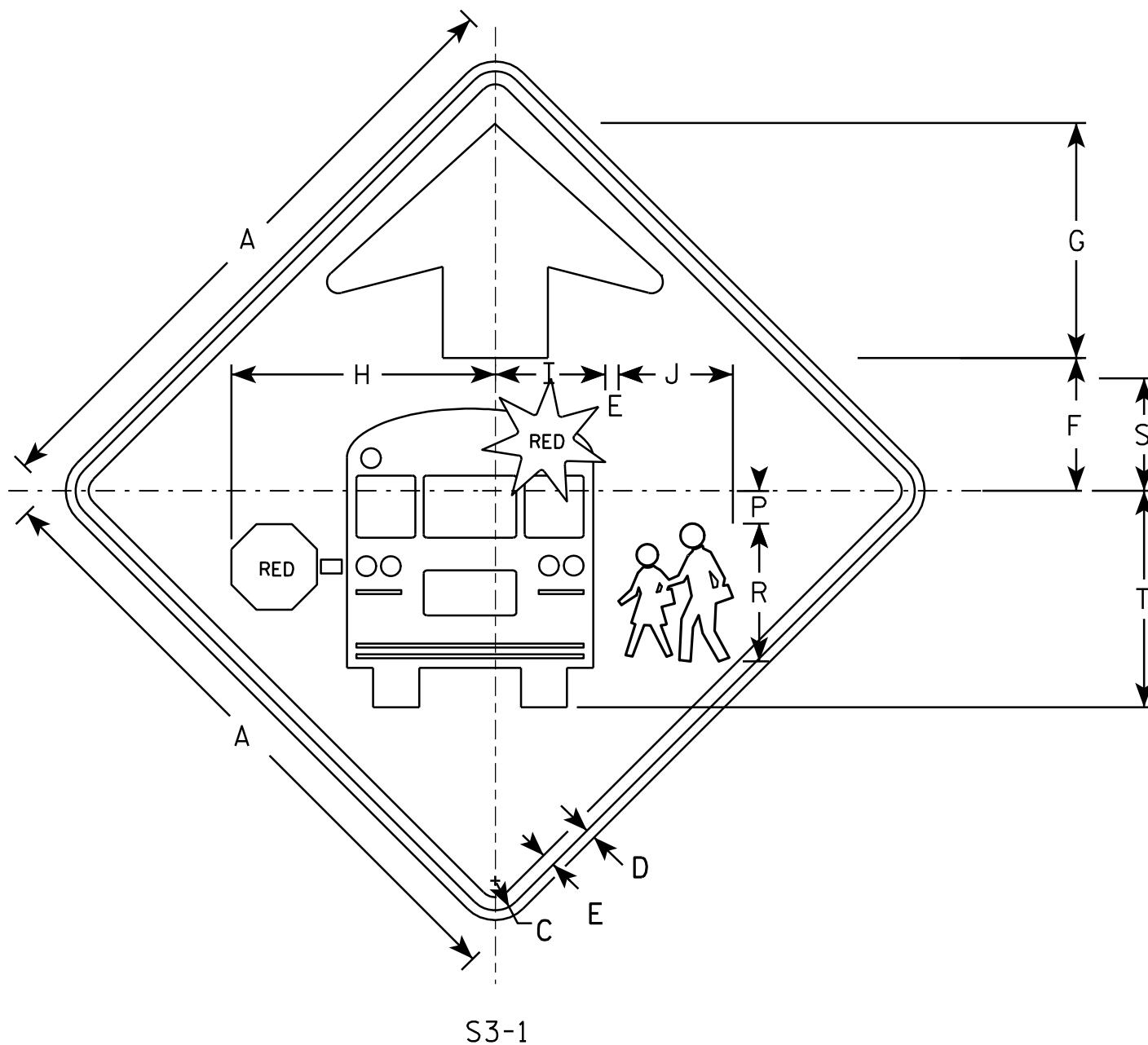
STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

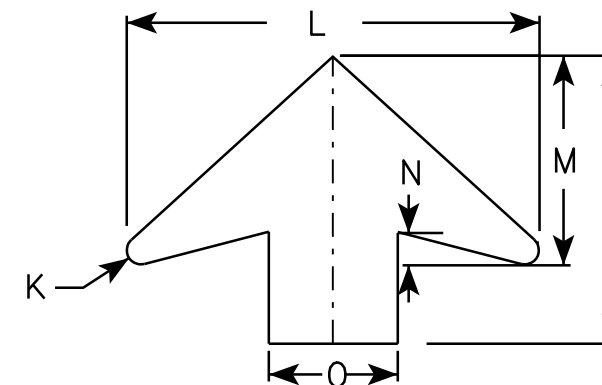
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 226 **E**

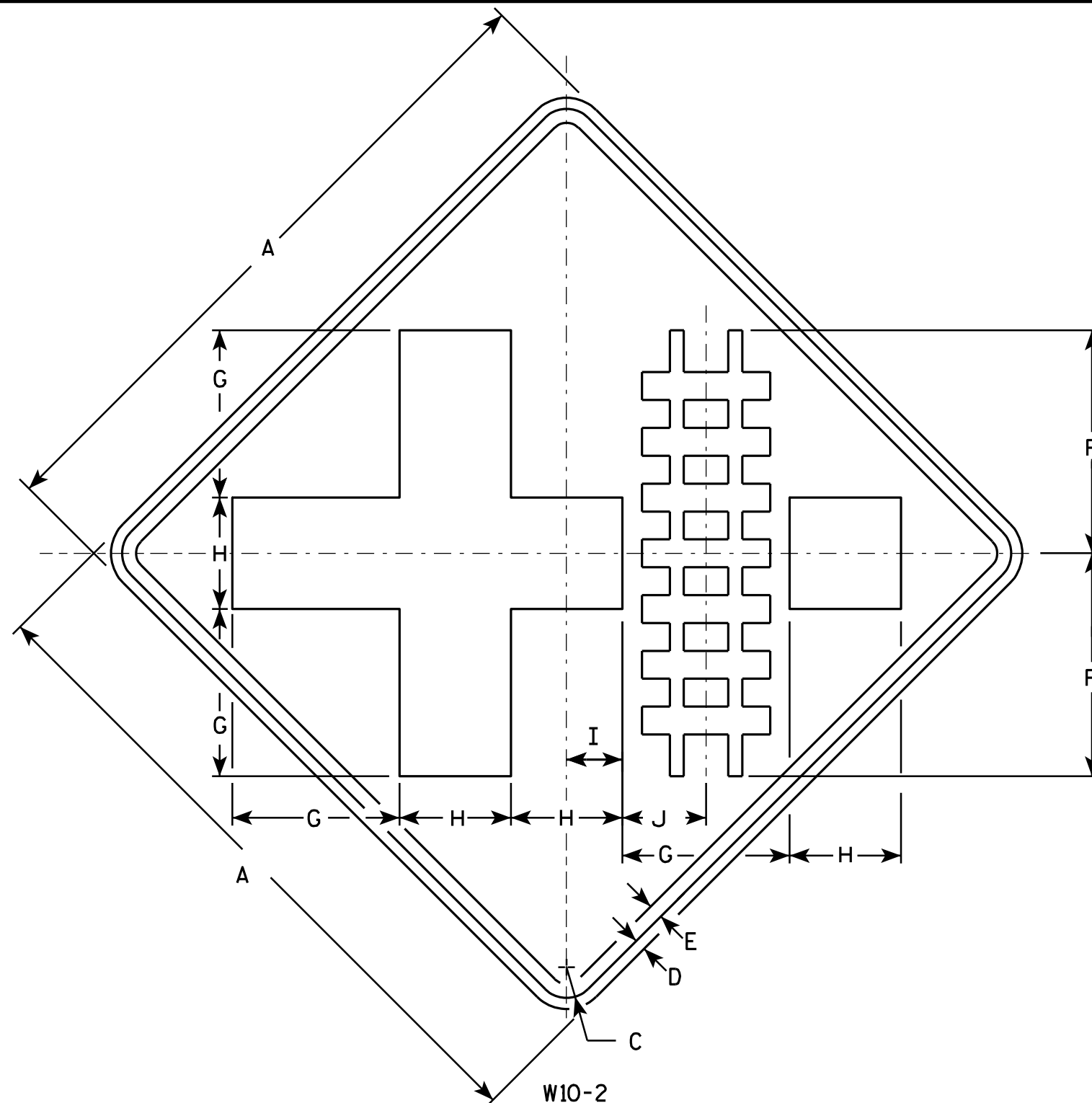


NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

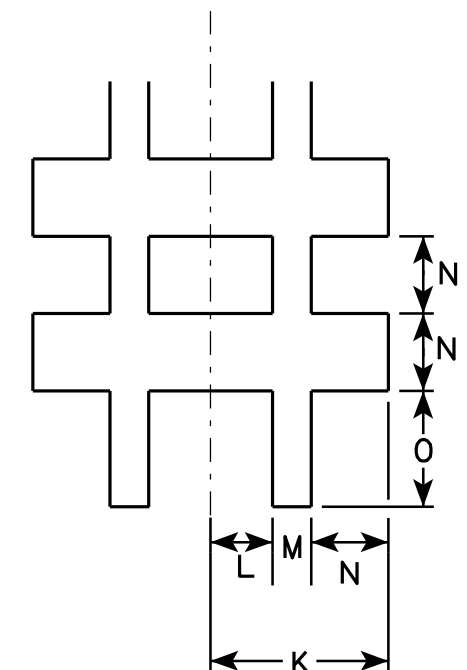
[illegible]

STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

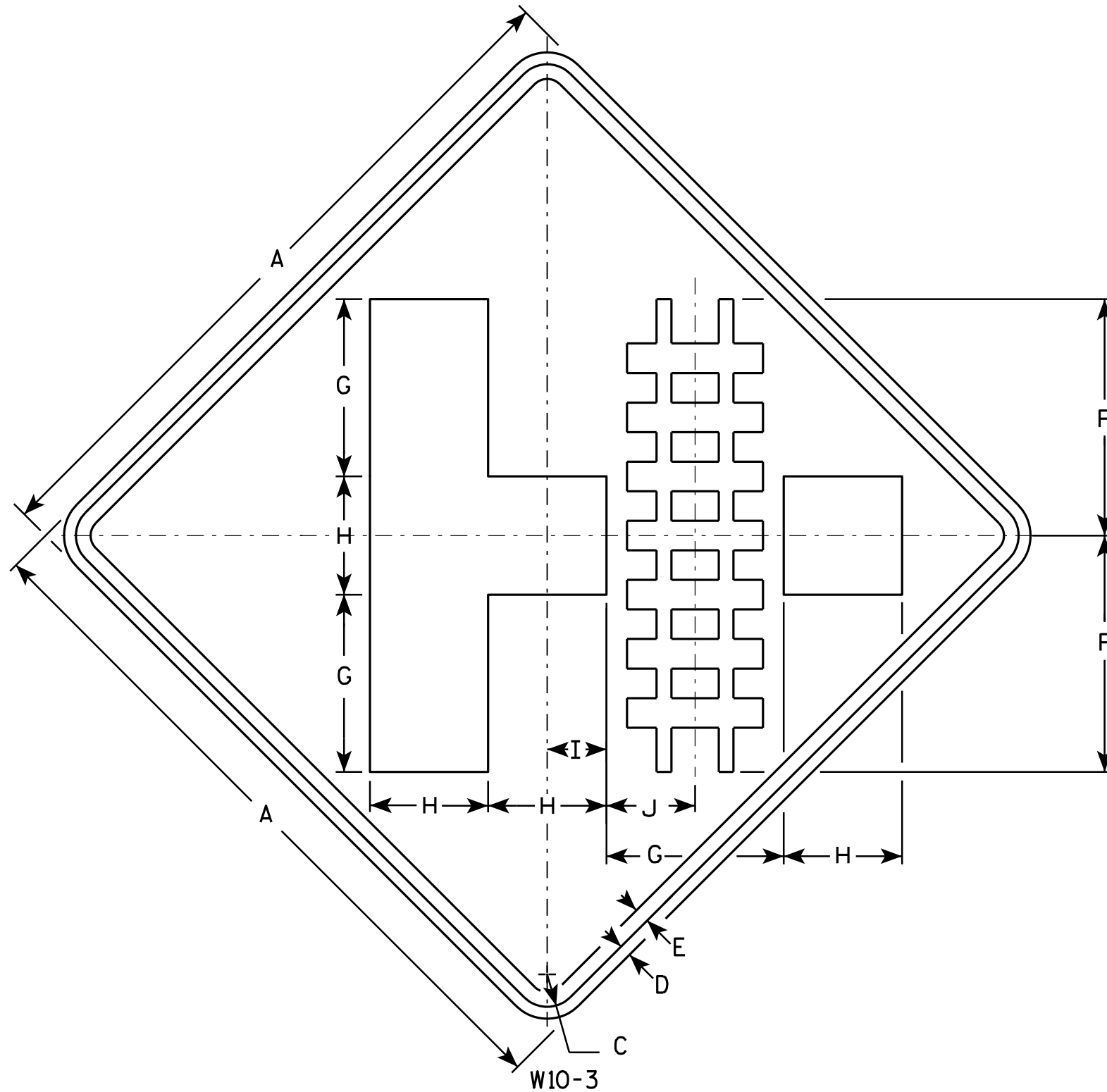
STANDARD SIGN W10-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

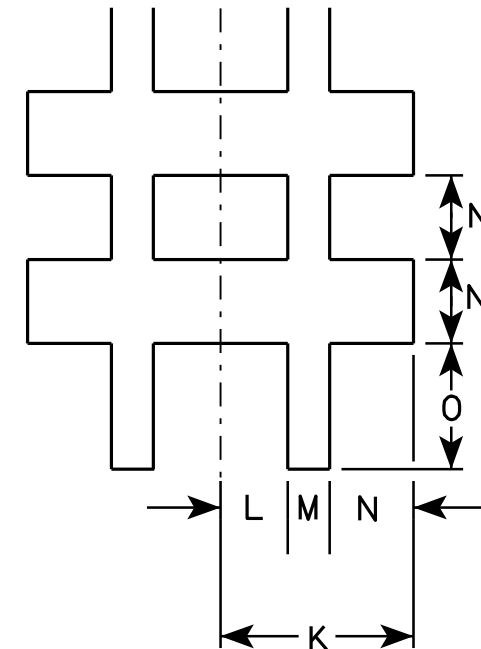
DATE 3/16/11 PLATE NO. W10-2.7

PROJECT NO: HWY: COUNTY: SHEET NO: 228 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

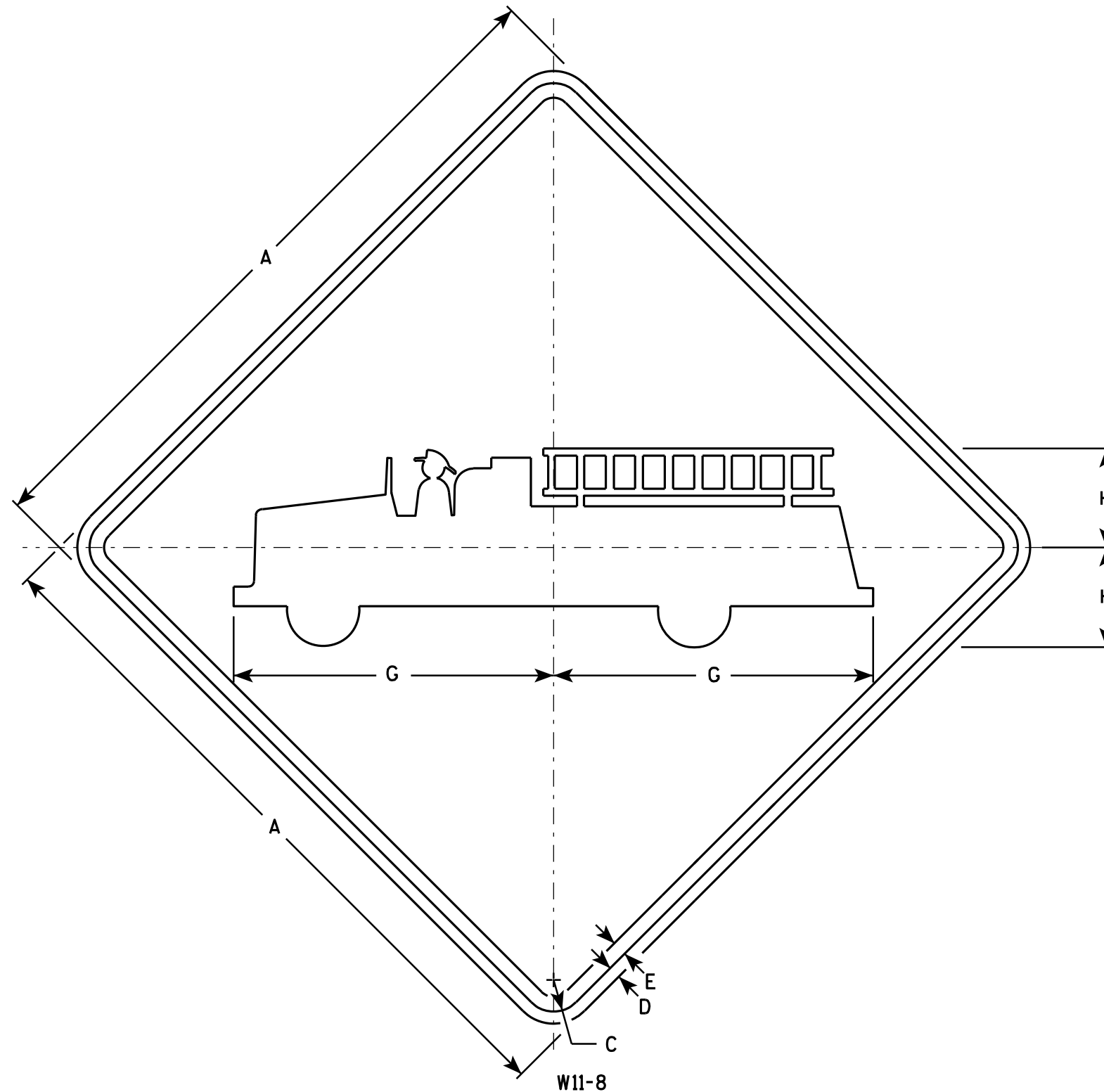
STANDARD SIGN W10-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W10-3.7

PROJECT NO: HWY: COUNTY: SHEET NO: 229 E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

W11-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN W11-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W11-8.6

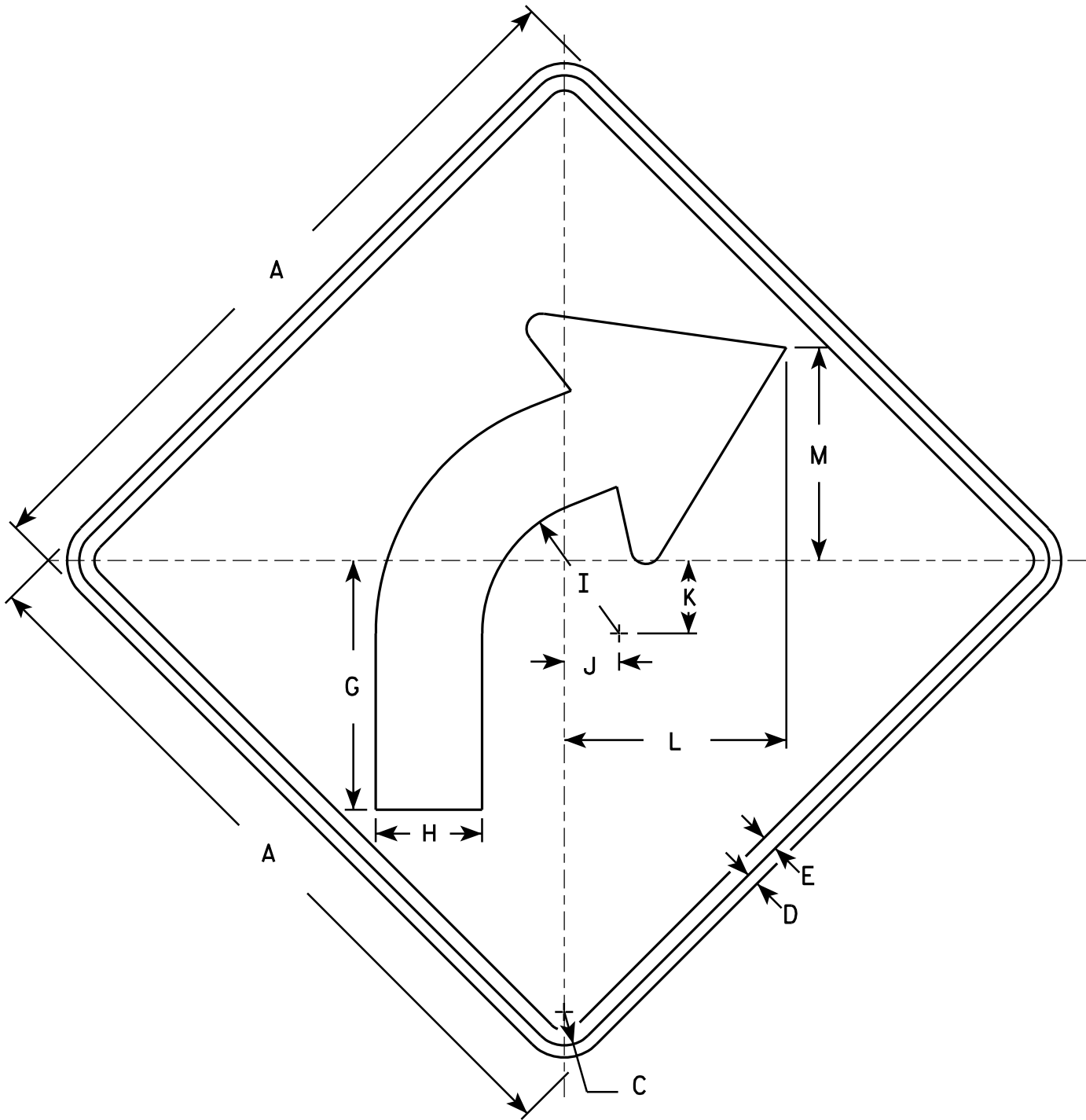
PROJECT NO:

SHEET NO: 230

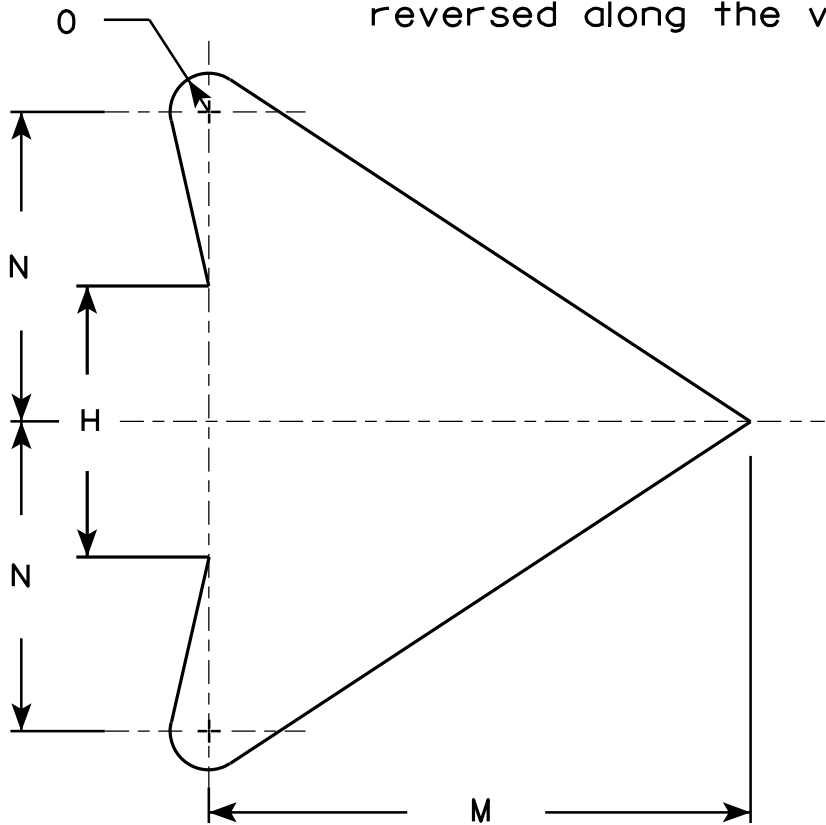
E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

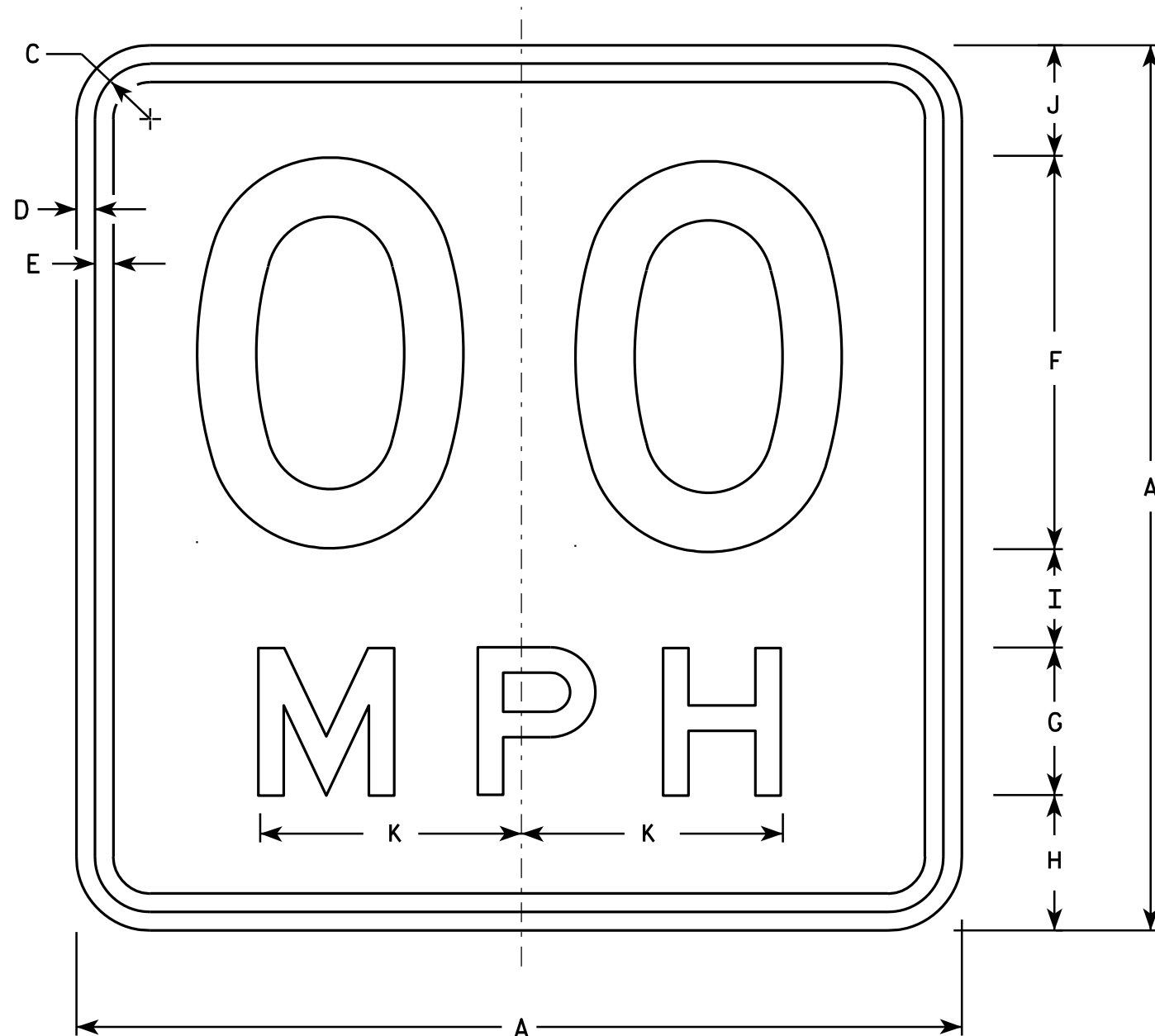
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
* 1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

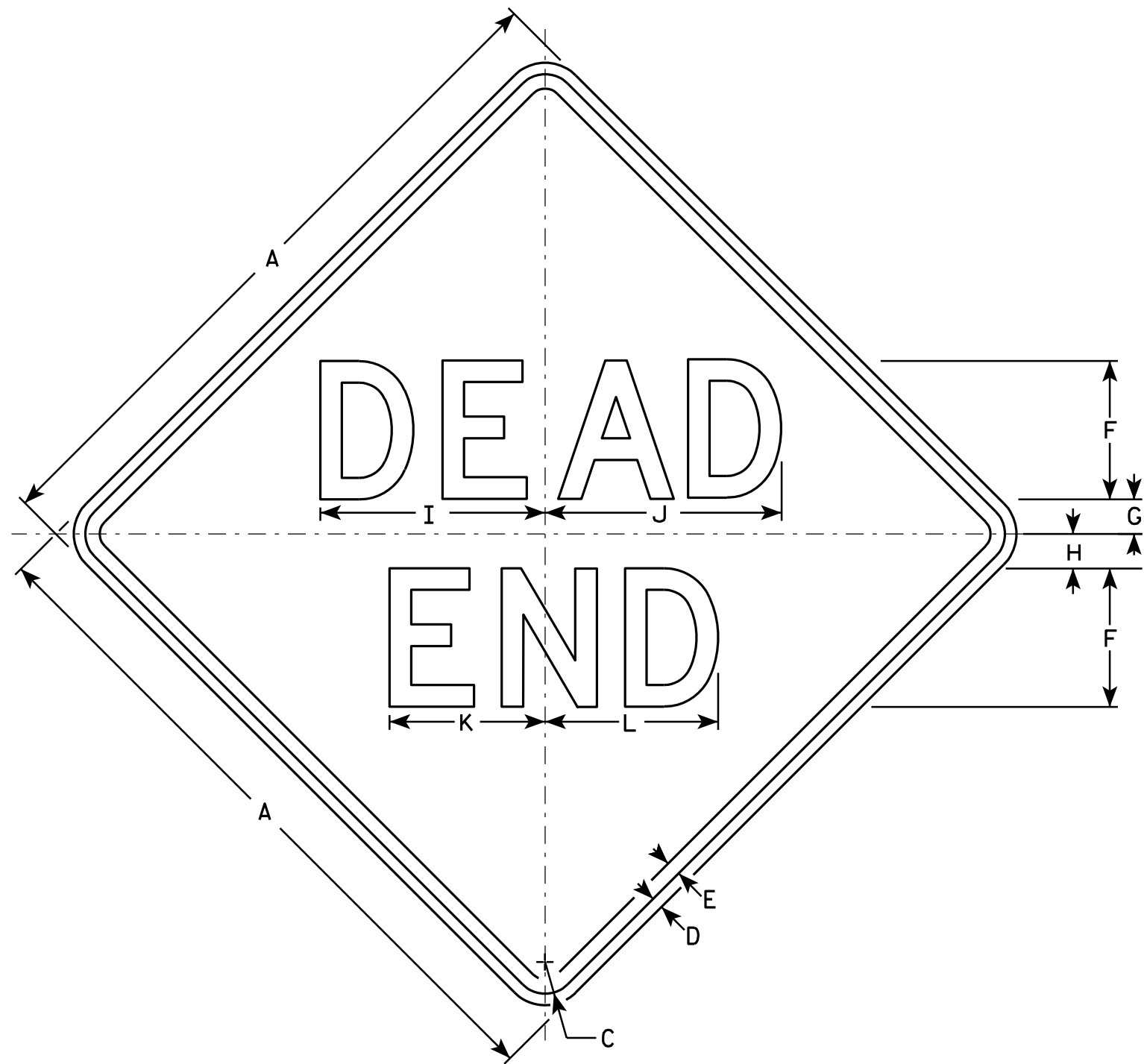
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 232

E



W14-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area, sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

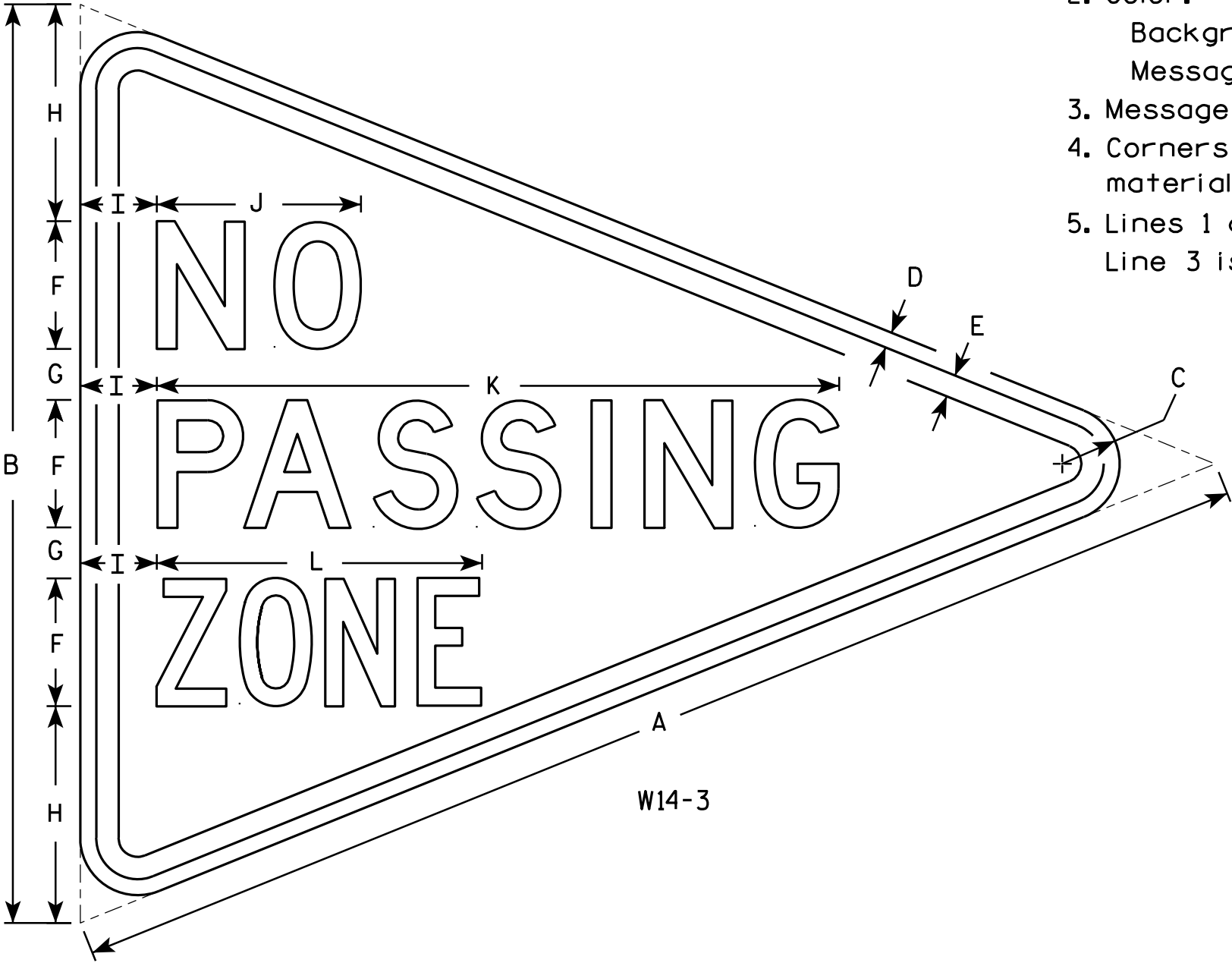
APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W14-1.6

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 233 **E**

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

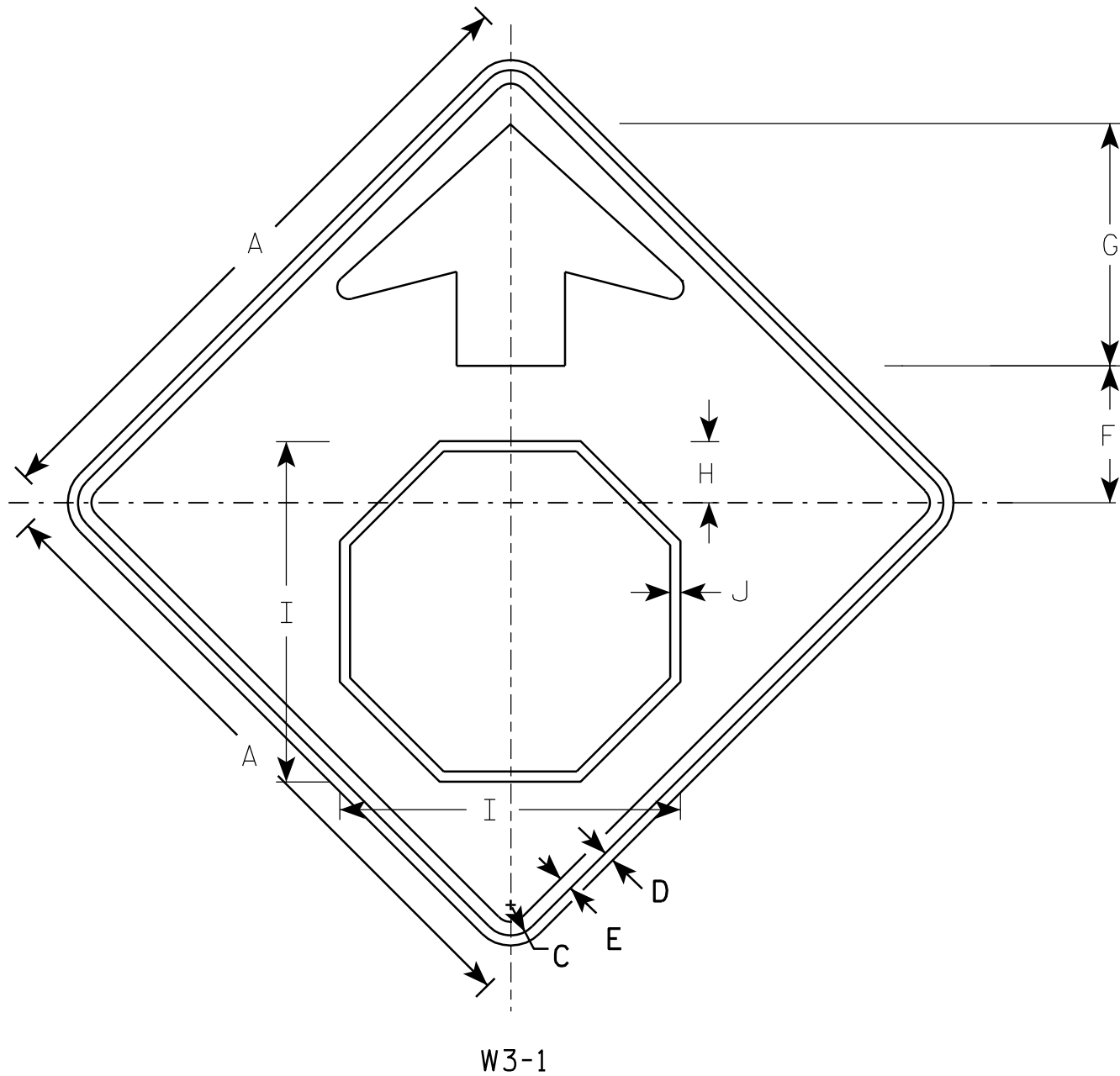
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

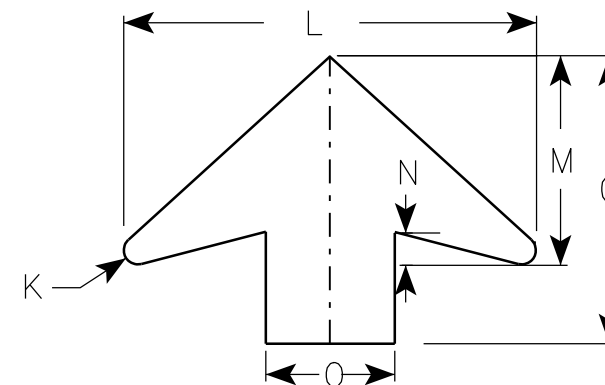
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

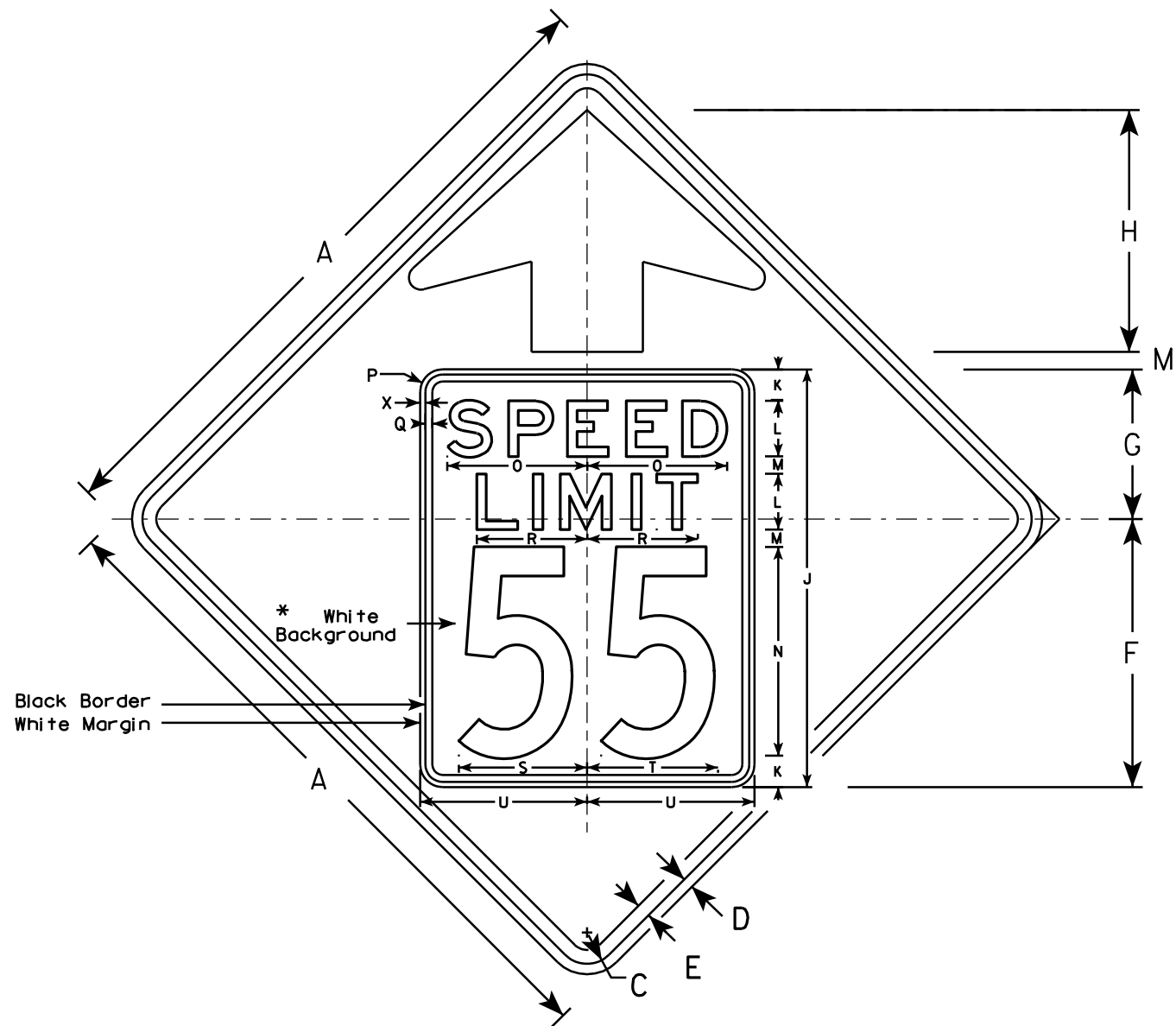
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO: 235

E

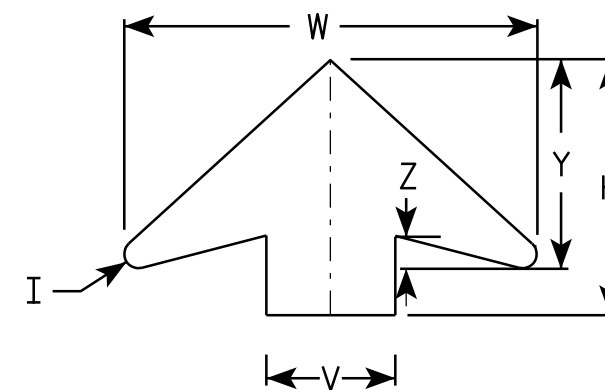


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

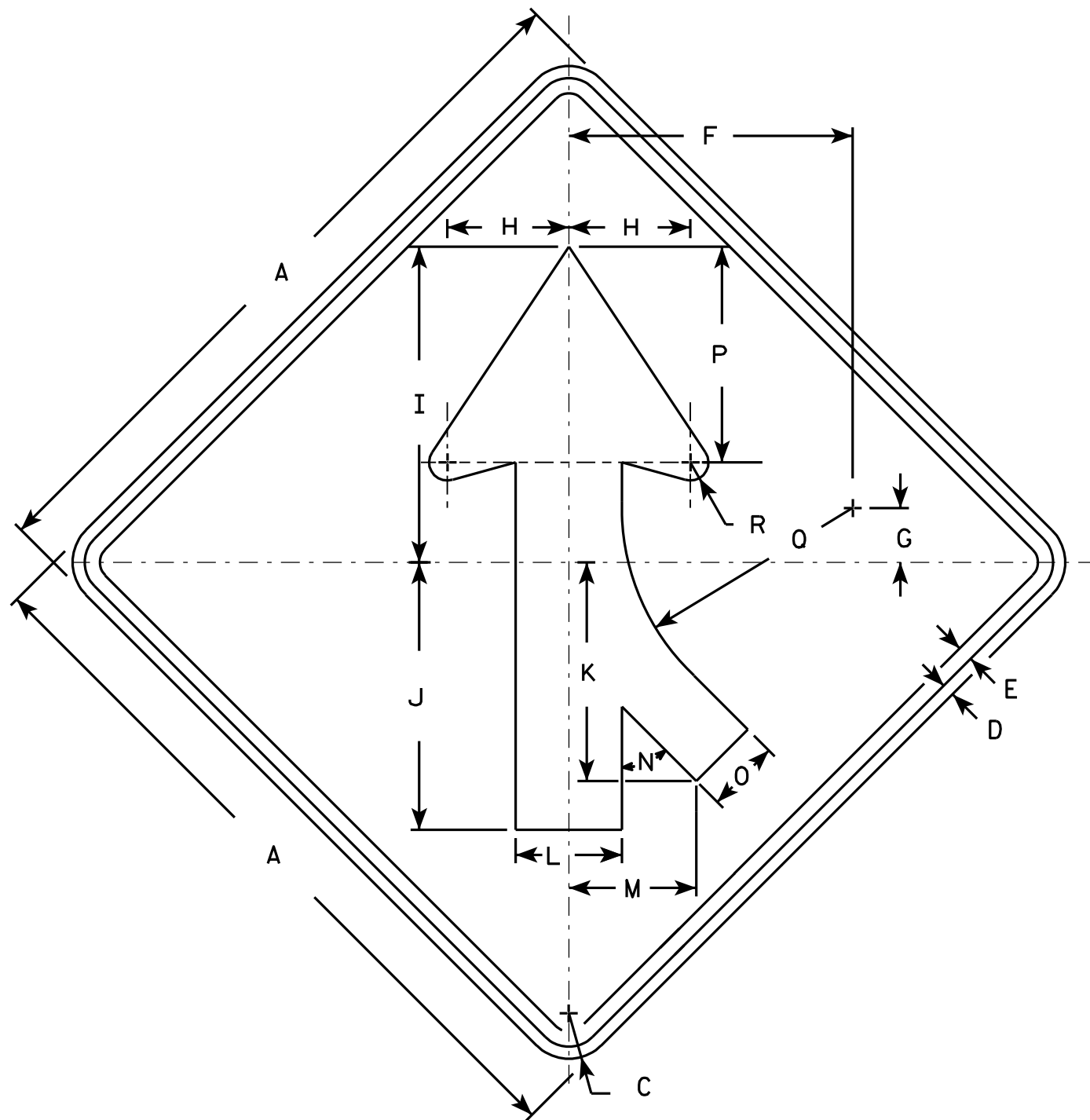
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 236

E



W4-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

STANDARD SIGN

W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W4-1.13

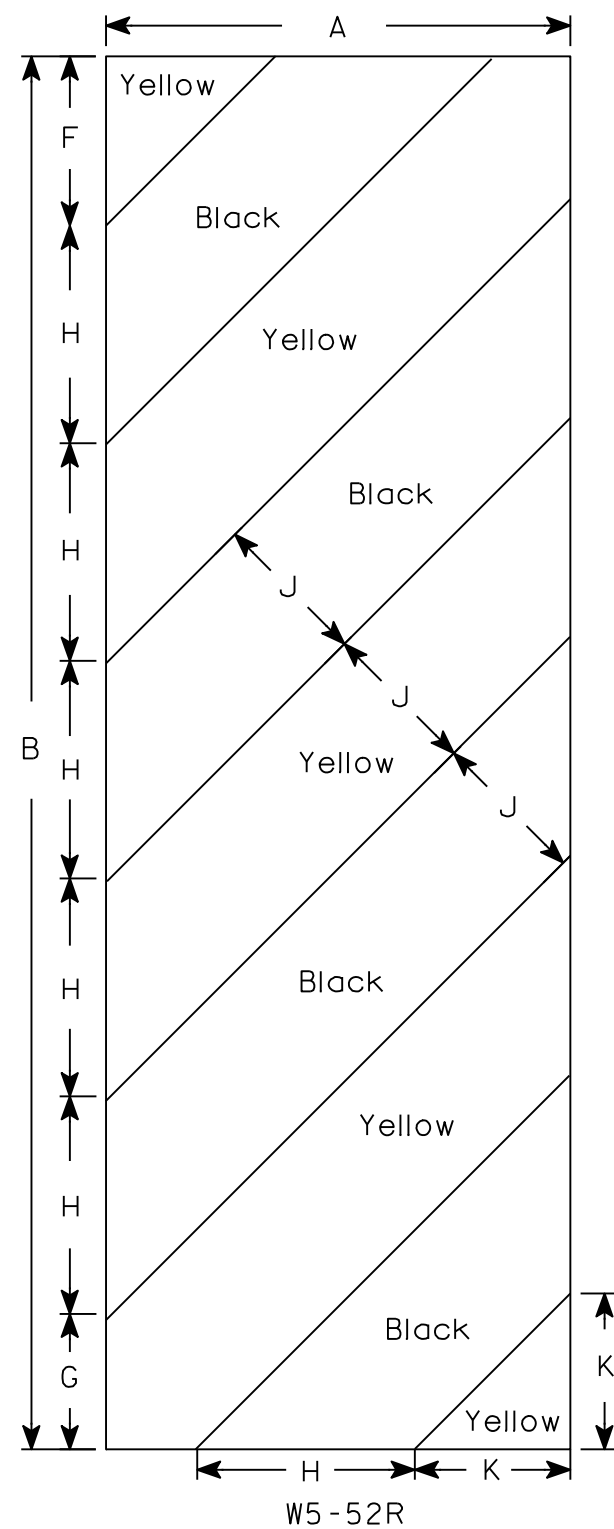
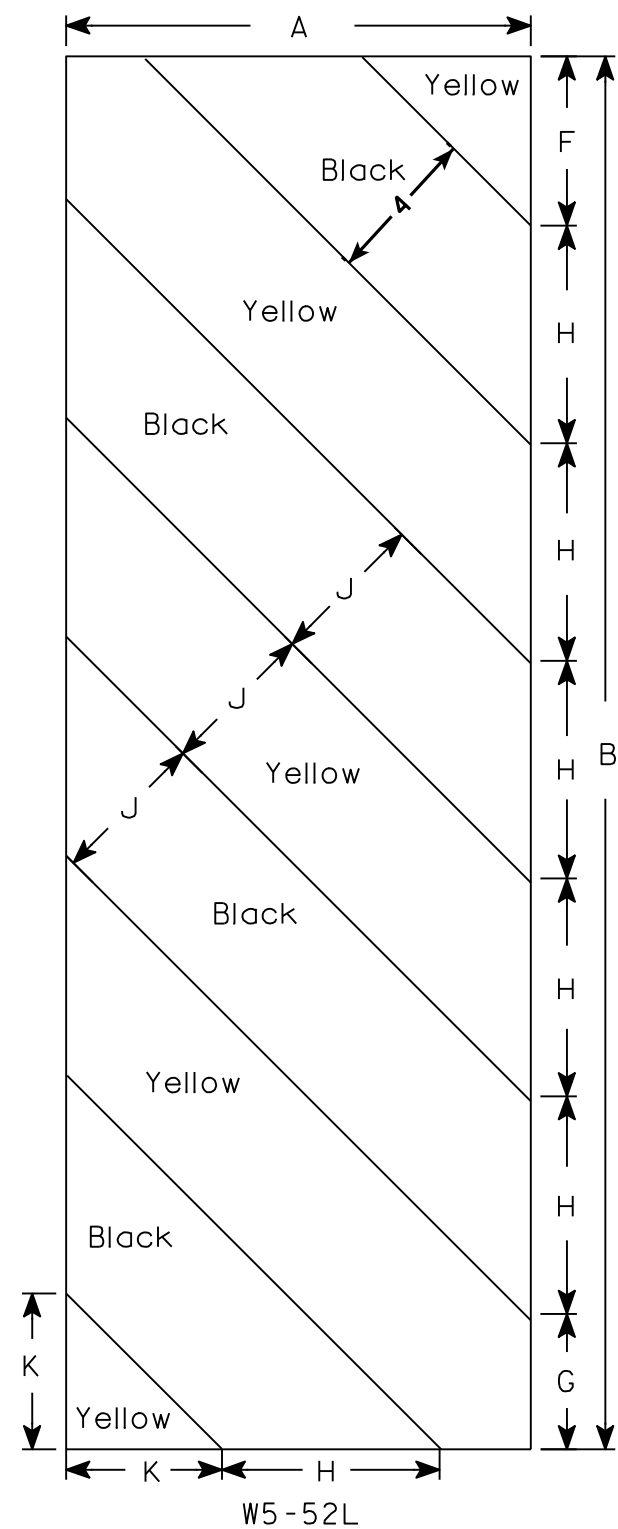
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 237

E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 5⁄16																6.75
4																											
5																											

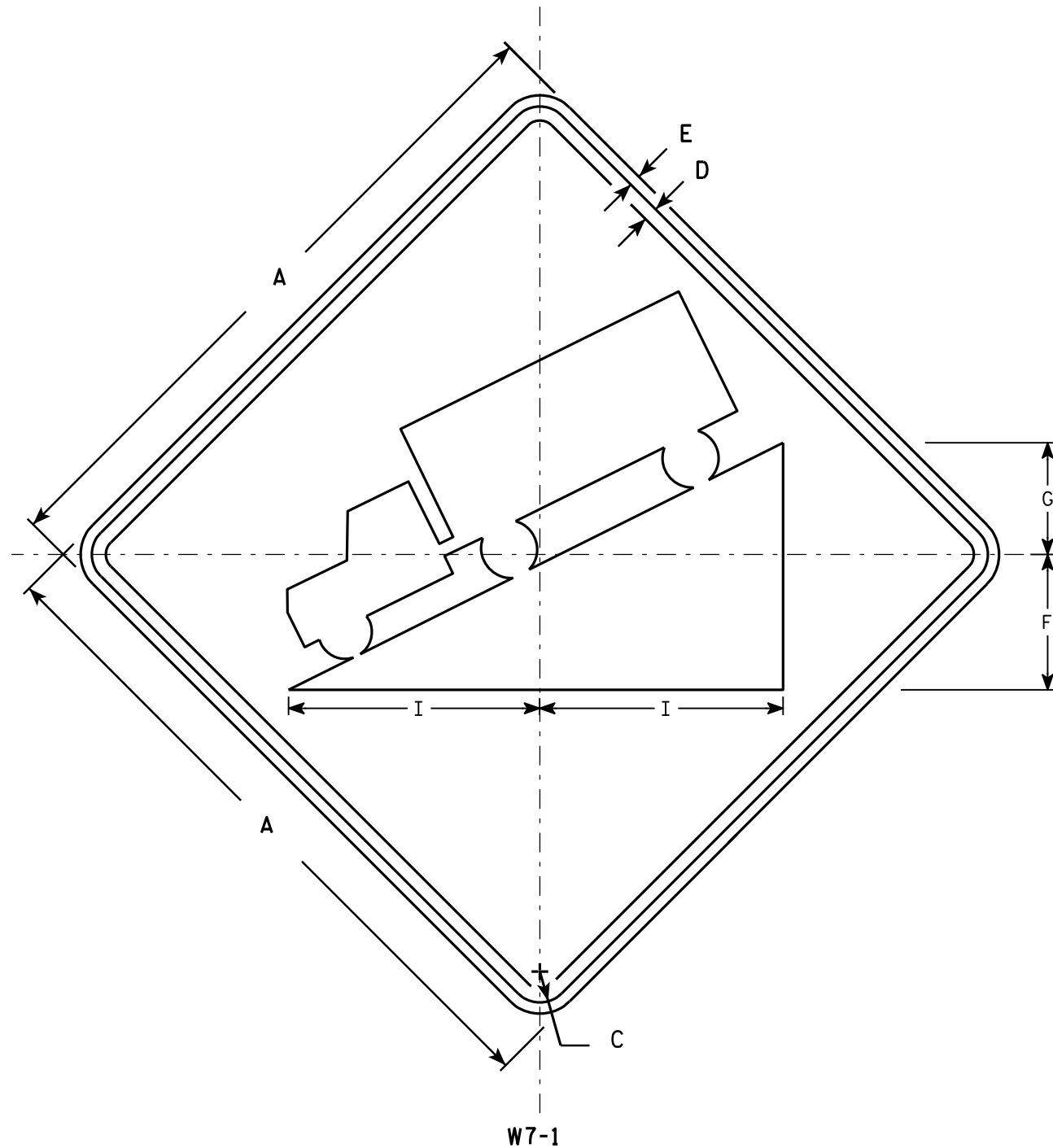
STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

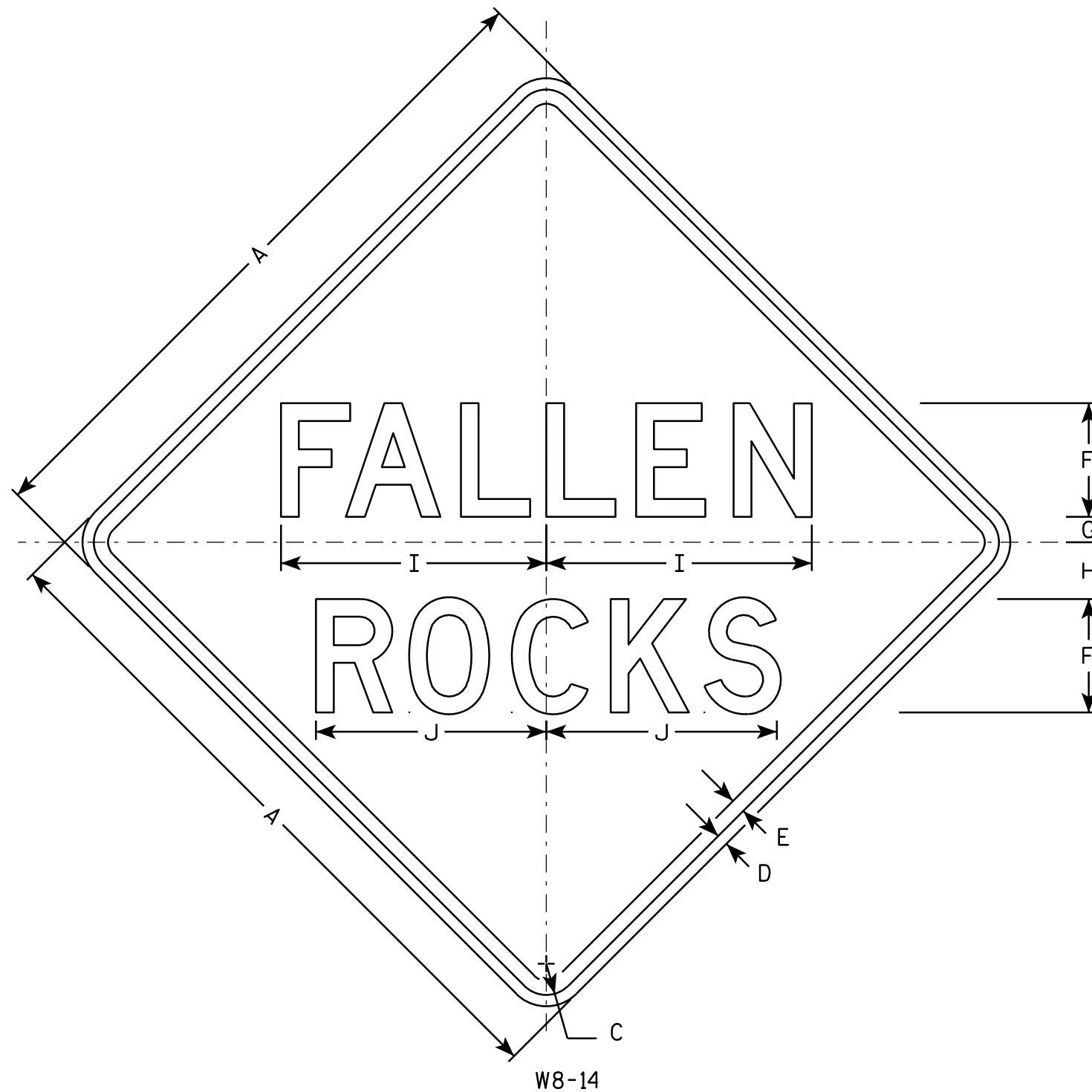
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/18/11 PLATE NO. W7-1.12



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	1 1/8	2 1/2	11 3/4	10 1/8																	6.25
2M	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
3	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
4	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
5	48		2 1/4	3/4	1	8	1 3/4	4	18 3/4	16 1/4																	16.0

STANDARD SIGN

W8-14

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/07/10 PLATE NO. W8-14.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 240

E

CONCRETE MASONRY ————— $f'_c = 3,500$ P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — $f_y = 60,000$ P.S.I.

100 YEAR FREQUENCY

Q₁₀₀ = 5,000 C.F.S.
VEL. = 11.0 F.P.S.
HW. = EL. 677.0
WATERWAY AREA = 453 SQ. FT.
DRAINAGE AREA = 15.7 SQ. MI.
SCOUR CRITICAL CODE = 8

R.D.S.=60 M.P.H.

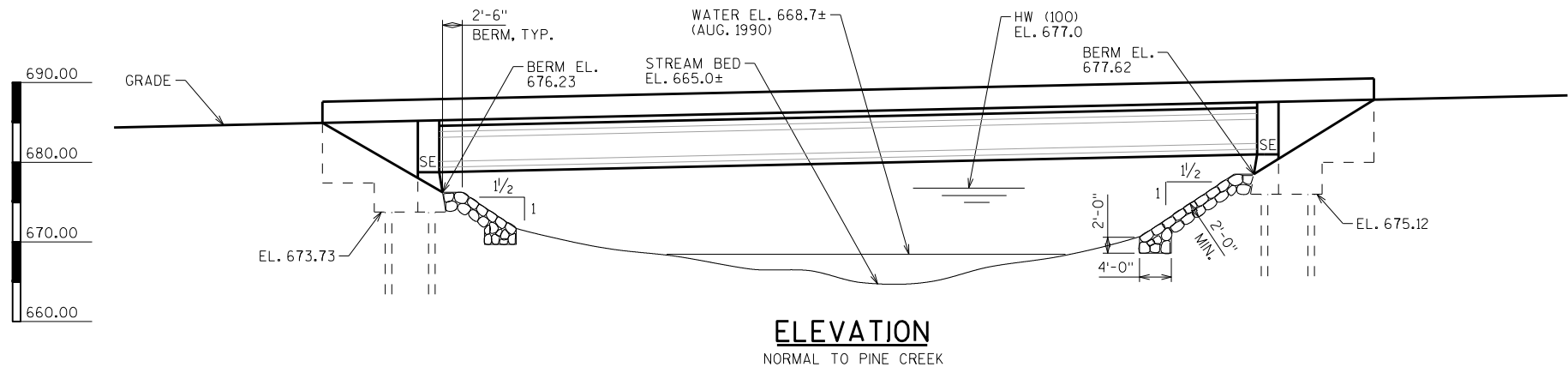
EXISTING RIPRAP TO BE REMOVED AND SALVAGED AT WINGS 2 & 3 TO ALLOW FOR REMOVAL & REPLACEMENT OF WINGS. AFTER WING CONSTRUCTION HAS BEEN COMPLETED, RIPRAP TO BE REPLACED. PAYMENT FOR THIS IS INCIDENTAL TO BID ITEM "REMOVING OLD STRUCTURE STA. 110+00".

NO.	DESCRIPTION	ELEV.
108+71	ALUMINUM DISC TOP RAIL 21" RT	690.54

AARON BONK (608) 261-0261
KENT BAHLER (608) 266-8490

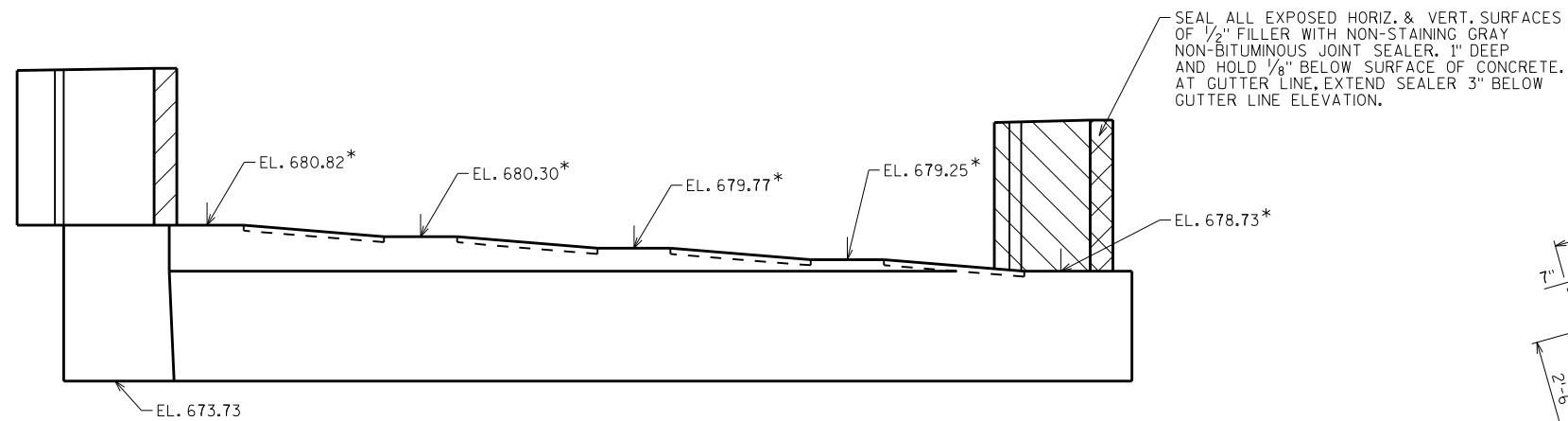
SCALE = 10.0

1. GENERAL PLAN
2. SOUTH ABUTMENT
3. SOUTH ABUTMENT DETAILS
4. NORTH ABUTMENT
5. NORTH ABUTMENT DETAILS
6. SLOPED FACE PARAPET "B"

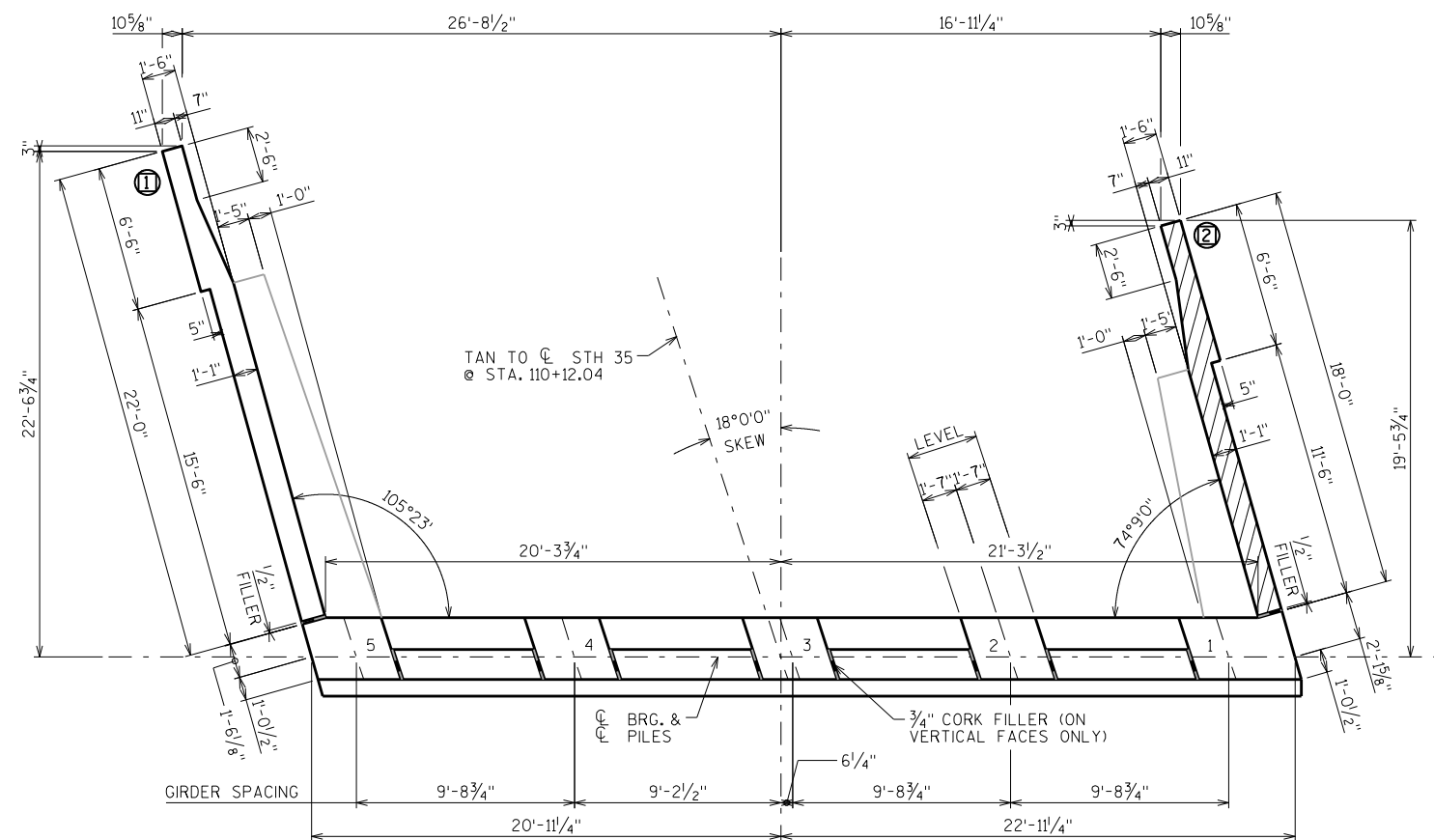


203.0200	REMOVING OLD STRUCTURE STA. 110+00	--	--	1	LS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-47-120	--	--	1	LS
206.6000.S	TEMPORARY SHORING	336	424	760	SF
210.0100	BACKFILL STRUCTURE	75	77	152	CY
502.0100	CONCRETE MASONRY BRIDGES	9	10	19	CY
502.3200	PROTECTIVE SURFACE TREATMENT	8	8	16	SY
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	46	46	92	EACH
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	1281	1297	2578	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	6	6	12	SY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	43	44	87	LF
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	1	1	2	EACH
	NON-BID ITEMS				
	FILLER	--	--	1/2"	SIZE

* BEAM SEAT ELEVATIONS
GIVEN AT ϕ BRG.



ELEVATION
LOOKING SOUTH

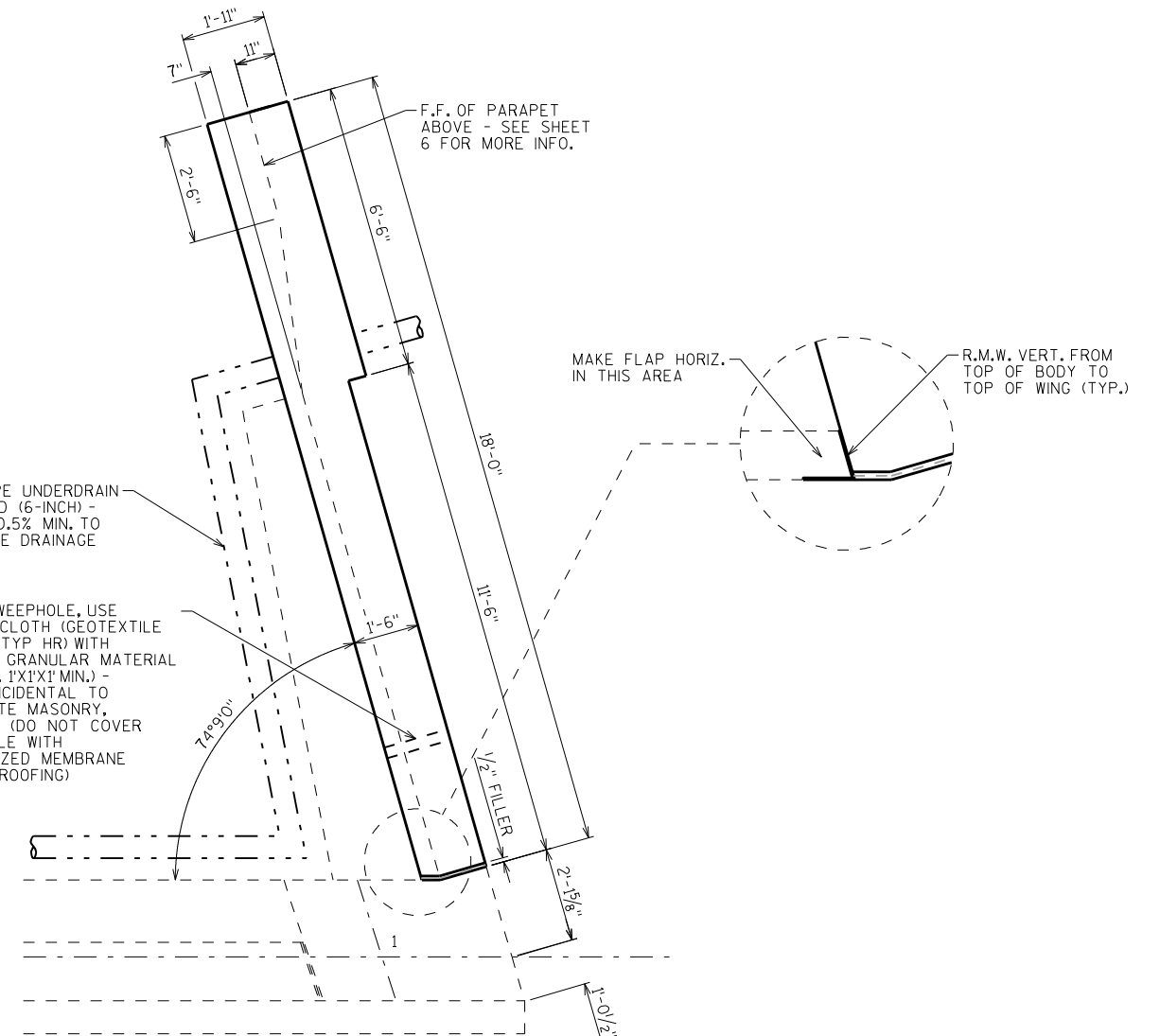


EXISTING PLAN

PARAPET AND TOP PORTION
OF WING TO BE REMOVED

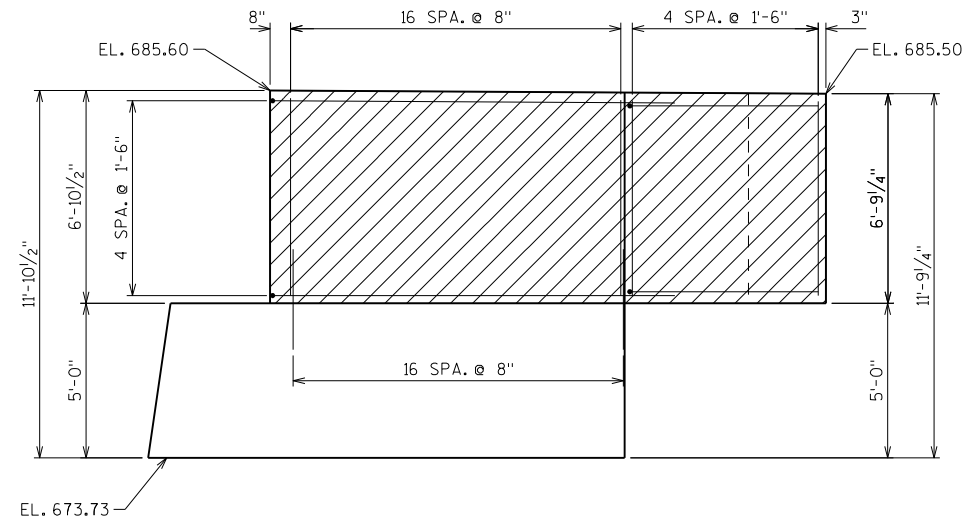
NEW PIPE UNDERDRAIN
WRAPPED (6-INCH) -
SLOPE 0.5% MIN. TO
SUITABLE DRAINAGE

3" DIA. WEEPHOLE, USE
FILTER CLOTH (GEOTEXTILE
FABRIC, TYP HR) WITH
SELECT GRANULAR MATERIAL
(ON B.F. 1'X1' MIN.) -
COST INCIDENTAL TO
CONCRETE MASONRY.
BRIDGES (DO NOT COVER
WEEPHOLE WITH
RUBBERIZED MEMBRANE
WATERPROOFING)



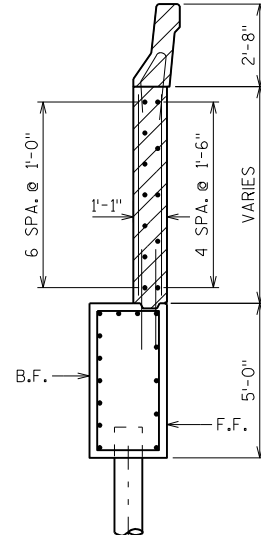
NEW ENLARGED WING 2 PLAN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-47-120			
DRAWN BY AMB		PLANS CK'D. MSC	
SOUTH ABUTMENT		SHEET 2	
		242	

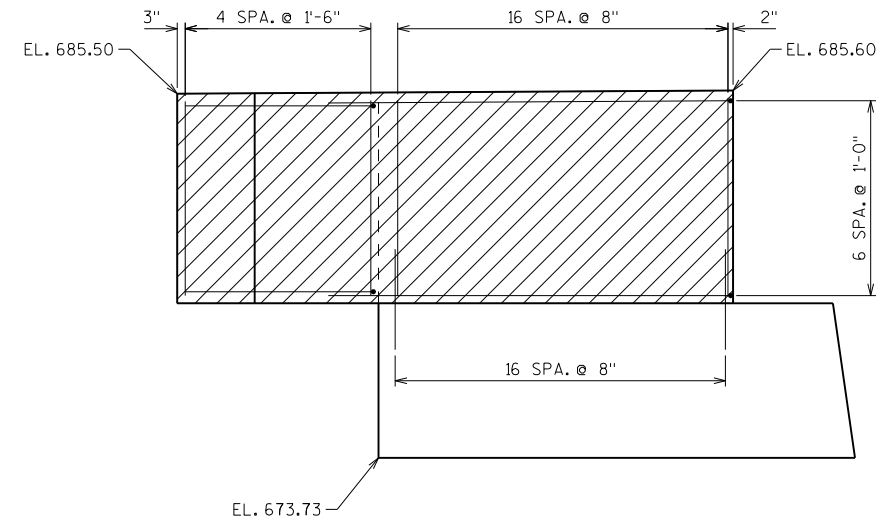
**WING 2 ELEVATION**

SHOWING F.F. BAR STEEL REINF.

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

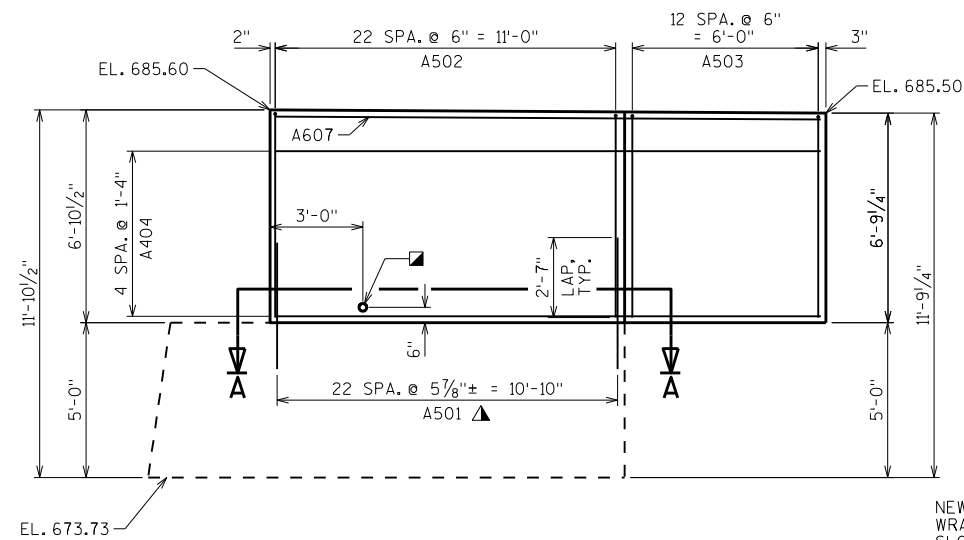
**SECTION THRU WING 2**

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

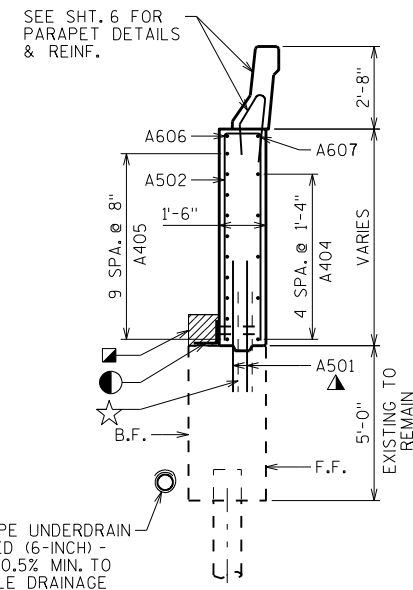
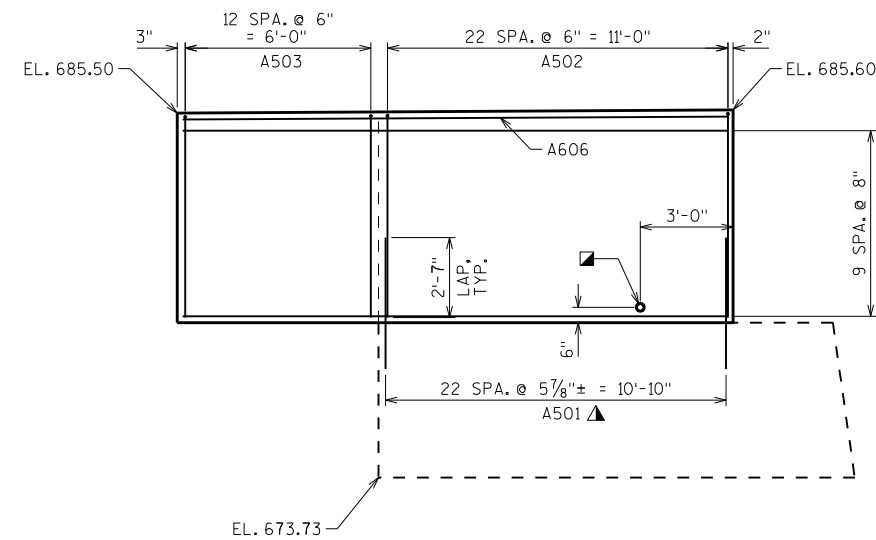
EXISTING WING 2**WING 2 ELEVATION**

SHOWING B.F. BAR STEEL REINF.

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

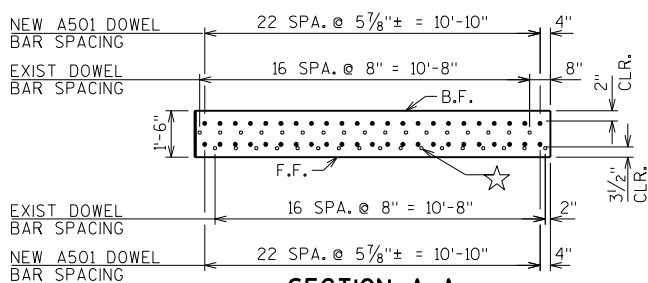
**WING 2 ELEVATION**

SHOWING F.F. BAR STEEL REINF.

**SECTION THRU WING 2****NEW WING 2****WING 2 ELEVATION**

SHOWING B.F. BAR STEEL REINF.

- 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS AT BACK FACE.
- ▣ 3" DIA. WEEPHOLE, USE FILTER CLOTH (GEOTEXTILE FABRIC, TYPE HR) WITH SELECT GRANULAR MATERIAL (ON BF 1'X1' MIN.) - COST INCIDENTAL TO CONCRETE MASONRY, BRIDGES (DO NOT COVER WEEPHOLE WITH RUBBERIZED MEMBRANE WATERPROOFING)
- ☆ EXISTING DOWELS TO REMAIN & BE INCORPORATED INTO NEW WORK AT TOP OF WING LOWER BODY, TYP.
- ▲ A501 BARS TO BE PLACED AS "CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS", EMBED 1'-6" MIN. INTO EXISTING ABUTMENT.

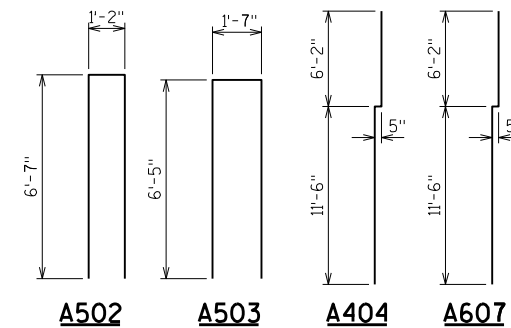
**SECTION A-A**

SHOWING EXISTING & NEW DOWELS
NEW DOWELS TO BE LOCATED TO MISS EXISTING DOWELS

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	CO.	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	46	4'-1"			WING 2 VERT. DOWELS - F.F. & B.F.
A502	X	23	14'-1"	X		WING 2 VERT.
A503	X	13	14'-2"	X		WING 2 VERT.
A404	X	5	17'-11"	X		WING 2 HORIZ. F.F.
A405	X	10	17'-7"			WING 2 HORIZ. B.F.
A606	X	1	17'-7"			WING 2 HORIZ. B.F.
A607	X	1	17'-9"	X		WING 2 HORIZ. F.F.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-47-120			
DRAWN BY AMB		PLANS CK'D. MSC	
SOUTH ABUTMENT DETAILS		SHEET 3	
		243	

SEAL ALL EXPOSED HORIZ. & VERT. SURFACES
OF 1/2" FILLER WITH NON-STAINING GRAY
NON-BITUMINOUS JOINT SEALER. 1" DEEP
AND HOLD 1/8" BELOW SURFACE OF CONCRETE.
AT GUTTER LINE, EXTEND SEALER 3" BELOW
GUTTER LINE ELEVATION.

-EL. 682.01*

- EL. 680.12 *

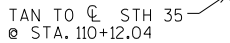
-EL. 680.59*

- EL. 681.06 *

*EL. 681.54—

- EL. 675.12

LOOKING NORTH



18° 0' 0"
SKEW

LEVEL →

19'-7 1/2"

69°

4"

FILLER (ON FACES ONLY)

BRG. &
PILES

GIRDER SPACING

9'-8³/₄"

9'-8³/₄"

9'-2 1/2"

9'-8 3/4"

 PARAPET AND TOP PORTION
OF WING TO BE REMOVED



- NEW PIPE UNDERDRAIN
WRAPPED (6-INCH) -
SLOPE 0.5% MIN. TO
SUITABLE DRAINAGE

R.M.W. VERT. FROM
TOP OF BODY TO
TOP OF WING (TYB)

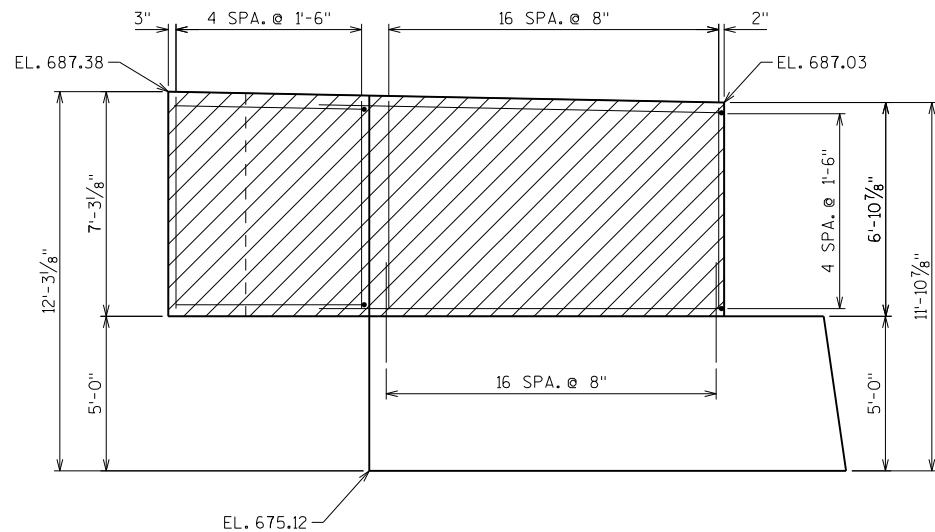
✓ MAKE FLAP HORIZ.
IN THIS AREA

3" DIA. WEEPHOLE, USE
FILTER CLOTH (GEOTEXTILE
FABRIC, TYP HR) WITH
SELECT GRANULAR MATERIAL
(ON B.F. 1'X1'X1 MIN.) -
COST INCIDENTAL TO
CONCRETE MASONRY, BRIDGES
(DO NOT COVER WEEPHOLE
WITH RUBBERIZED MEMBRANE
WATERPROOFING)

NEW ENLARGED WING 3 PLAN

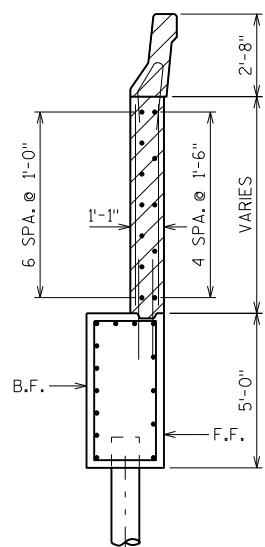
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-47-120			
DRAWN BY AMB		PLANS CK'D.	MSC
NORTH ABUTMENT		SHEET 4	
		244	

SCALE = 4.0

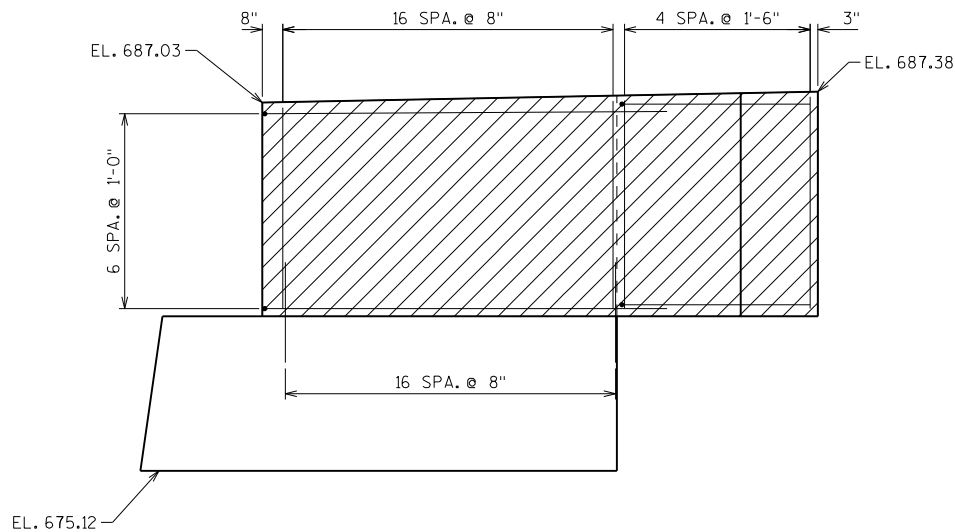
**WING 3 ELEVATION**

SHOWING F.F. BAR STEEL REINF.

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

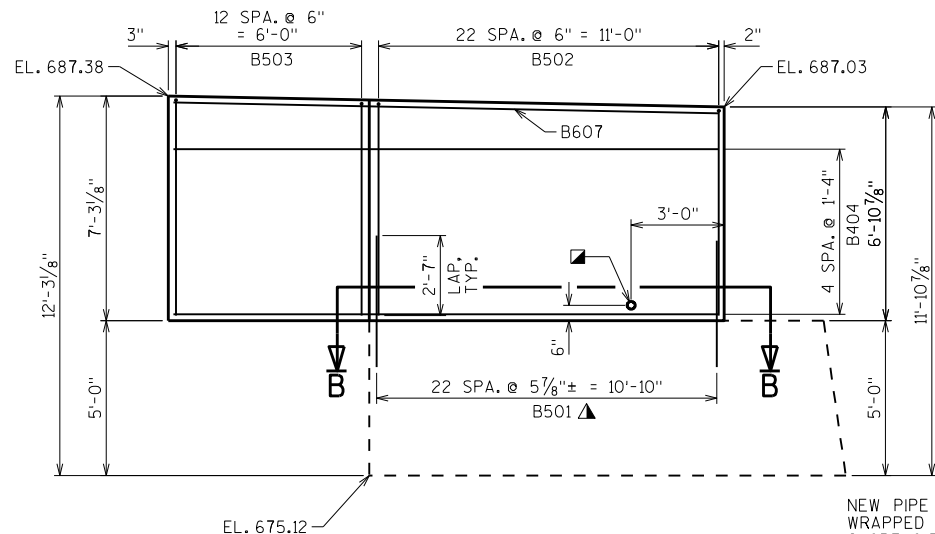
**SECTION THRU WING 3**

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

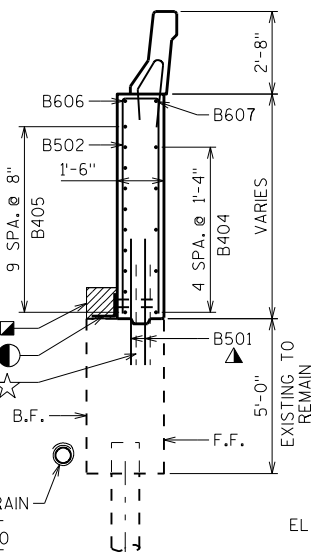
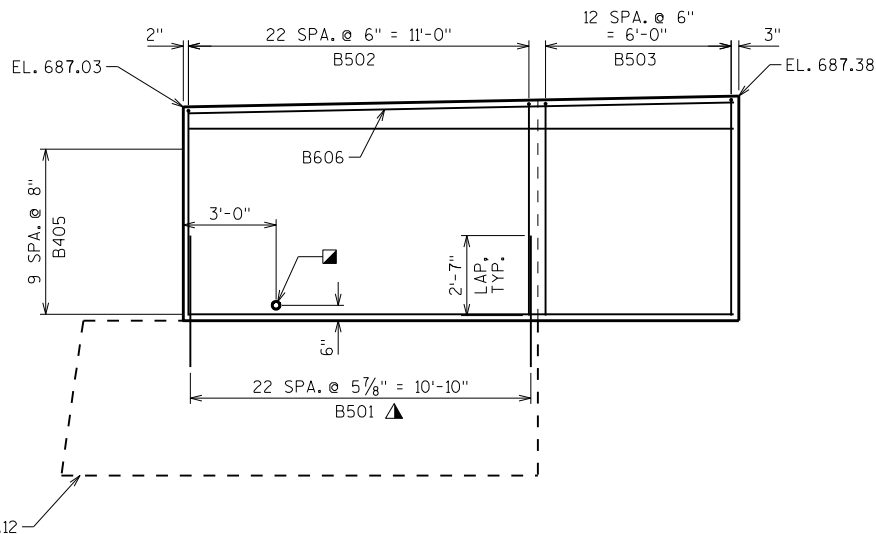
EXISTING WING 3**WING 3 ELEVATION**

SHOWING B.F. BAR STEEL REINF.

▨ PARAPET AND TOP PORTION
OF WING TO BE REMOVED

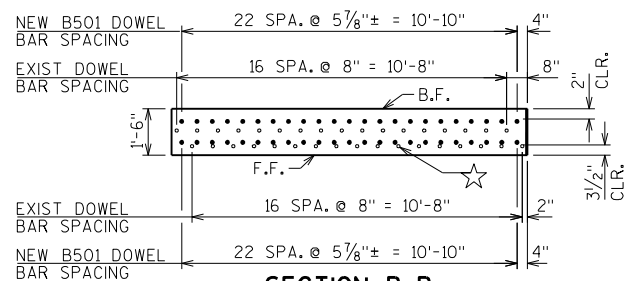
**WING 3 ELEVATION**

SHOWING F.F. BAR STEEL REINF.

**SECTION THRU WING 3****NEW WING 3****WING 3 ELEVATION**

SHOWING B.F. BAR STEEL REINF.

- 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS AT BACK FACE.
- ▣ 3" DIA. WEEPHOLE, USE FILTER CLOTH (GEOTEXTILE FABRIC, TYPE HR) WITH SELECT GRANULAR MATERIAL (ON BF 1'X1' MIN.) - COST INCIDENTAL TO CONCRETE MASONRY, BRIDGES (DO NOT COVER WEEPHOLE WITH RUBBERIZED MEMBRANE WATERPROOFING)
- ☆ EXISTING DOWELS TO REMAIN & BE INCORPORATED INTO NEW WORK AT TOP OF WING LOWER BODY, TYP.
- ▲ B501 BARS TO BE PLACED AS "CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS". EMBED 1'-6" MIN. INTO EXISTING ABUTMENT.

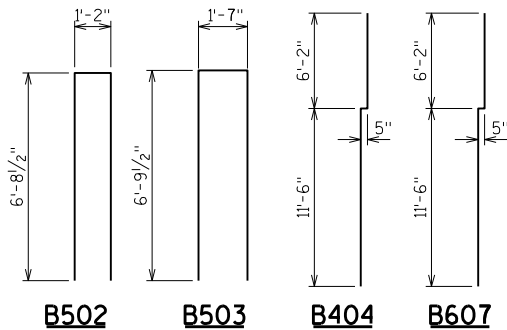
**SECTION B-B**

SHOWING EXISTING & NEW DOWELS
NEW DOWELS TO BE LOCATED TO MISS EXISTING DOWELS

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COA	NO. REQ'D.	LENGTH	BEV	BAR SERIES	LOCATION
B501	X	46	4'-1"			WING 3 VERT. DOWELS - F.F. & B.F.
B502	X	23	14'-4"	X		WING 3 VERT.
B503	X	13	14'-11"	X		WING 3 VERT.
B404	X	5	17'-11"	X		WING 3 HORIZ. F.F.
B405	X	10	17'-7"			WING 3 HORIZ. B.F.
B606	X	1	17'-7"			WING 3 HORIZ. B.F.
B607	X	1	17'-9"	X		WING 3 HORIZ. F.F.

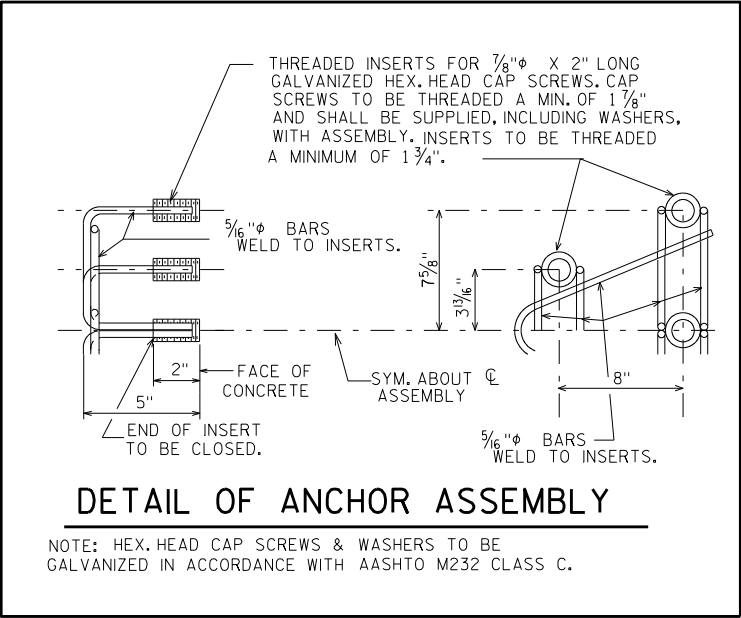
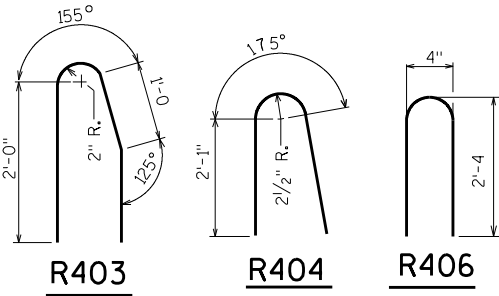
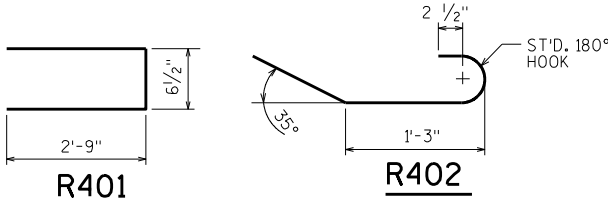


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-47-120			
DRAWN BY AMB		PLANS CK'D. MSC	
NORTH ABUTMENT DETAILS		SHEET 5 245	

BILL OF BARS

FOR ABUTMENT PARAPETS
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK
SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R401	X	15	15	5'-10"	X		WING STIRRUPS
R402	X	4	4	3'-1"	X		WINGS
R403	X	16	16	4'-7"	X		WING STIRRUPS
R404	X	15	15	4'-9"	X		WINGS
R505	X	6	6	6'-2"			WINGS
R406	X	16	16	4'-10"	X		WINGS
R507	X	5	5	13'-6"			WINGS

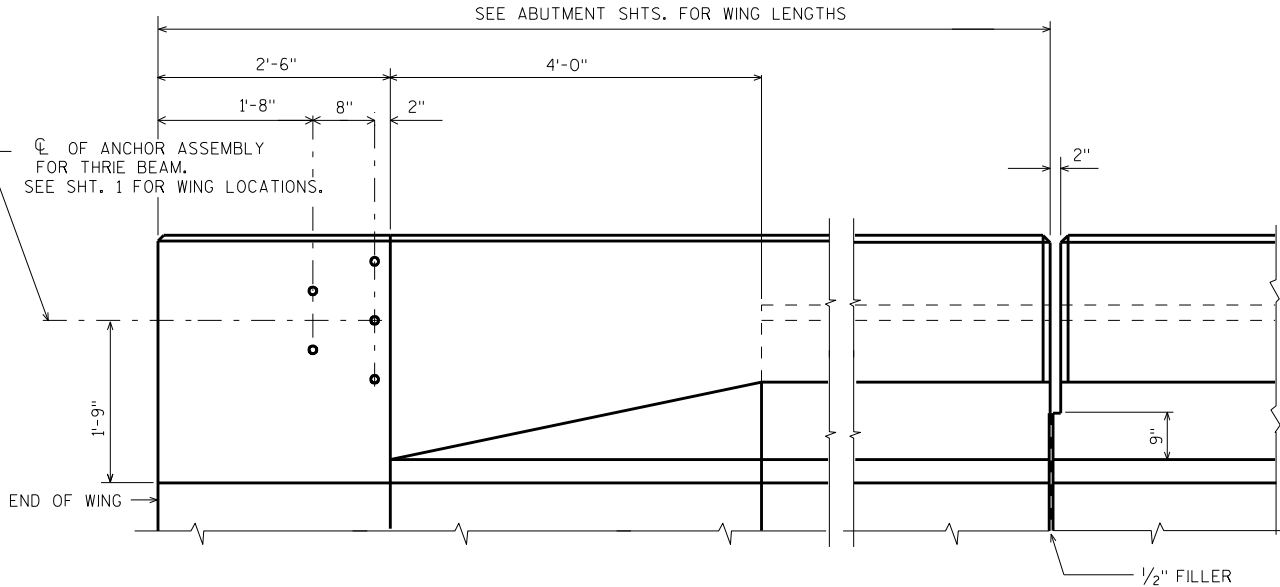


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-47-120			
DRAWN BY AMB		PLANS CK'D. MSC	
SLOPED FACE PARAPET "B"			SHEET 6
			246

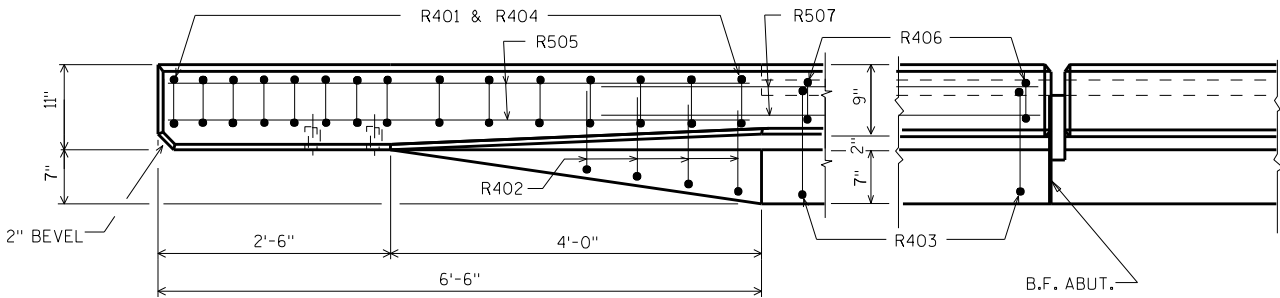
CONST. JOINT - STRIKE OFF
AS SHOWN.

SCALE = 1:0

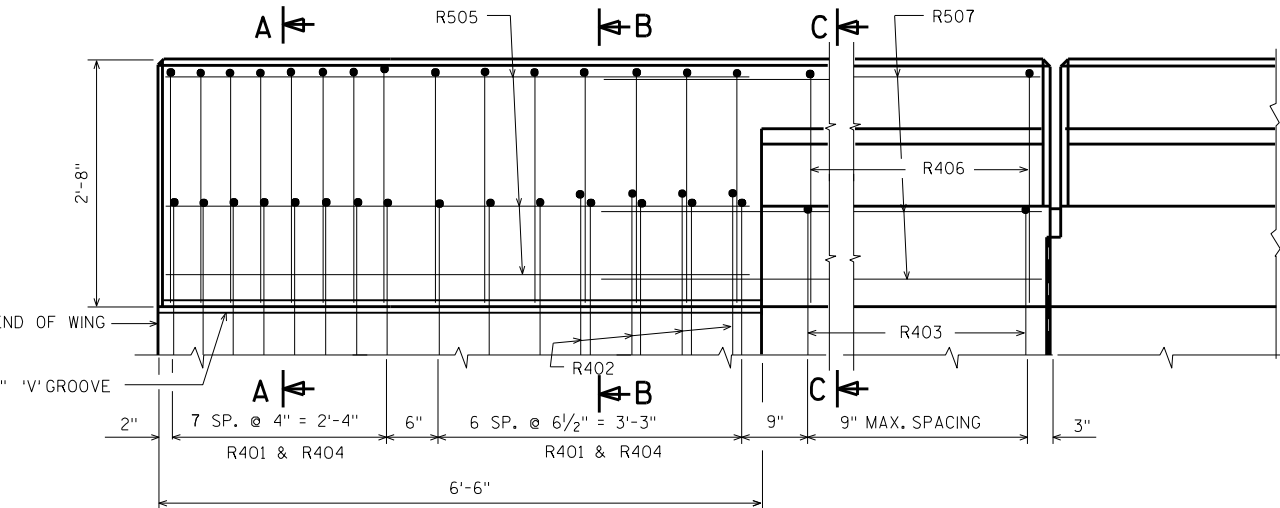
SEE ABUTMENT SHTS. FOR WING LENGTHS



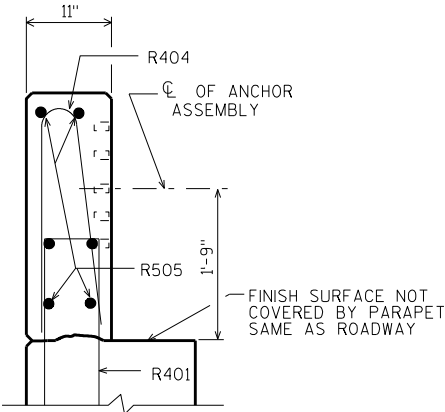
INSIDE ELEVATION



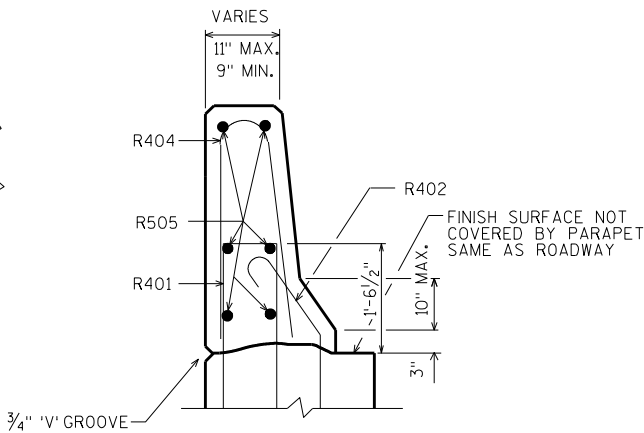
PLAN



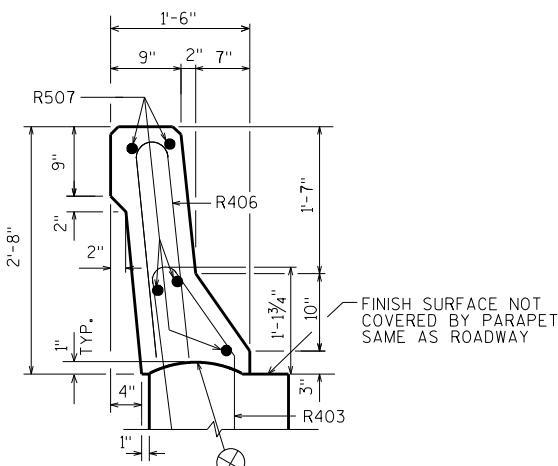
OUTSIDE ELEVATION



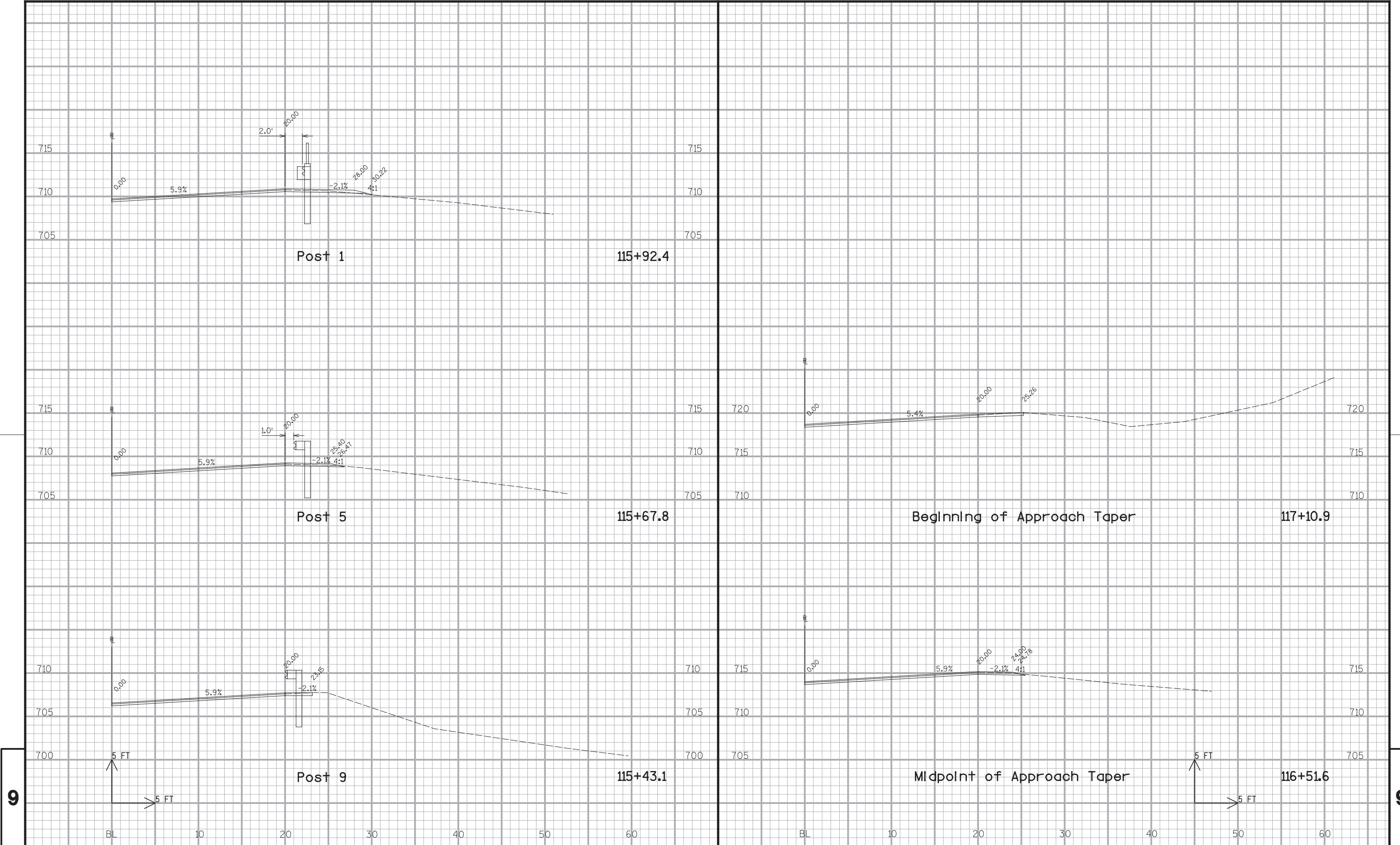
SECTION A

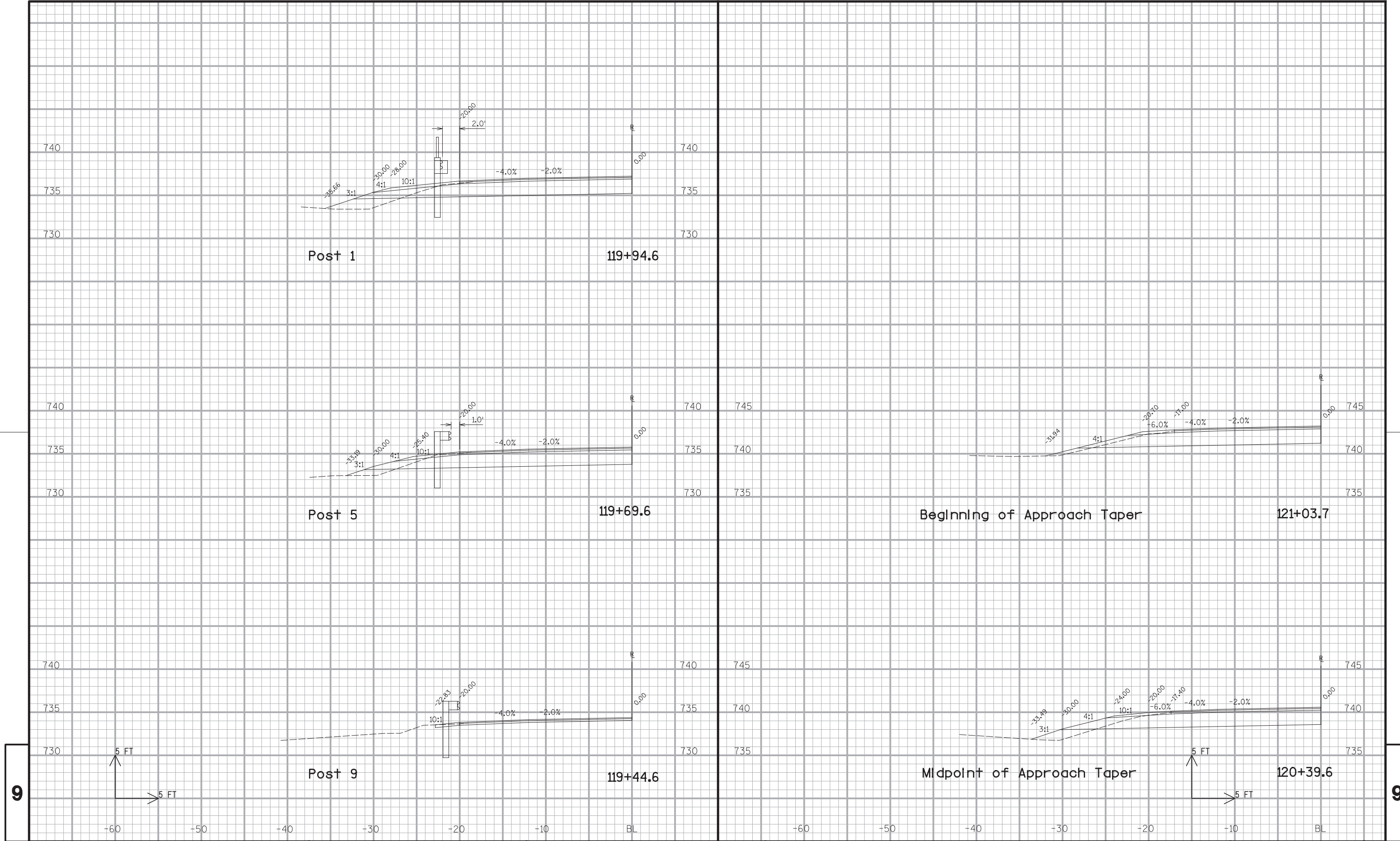


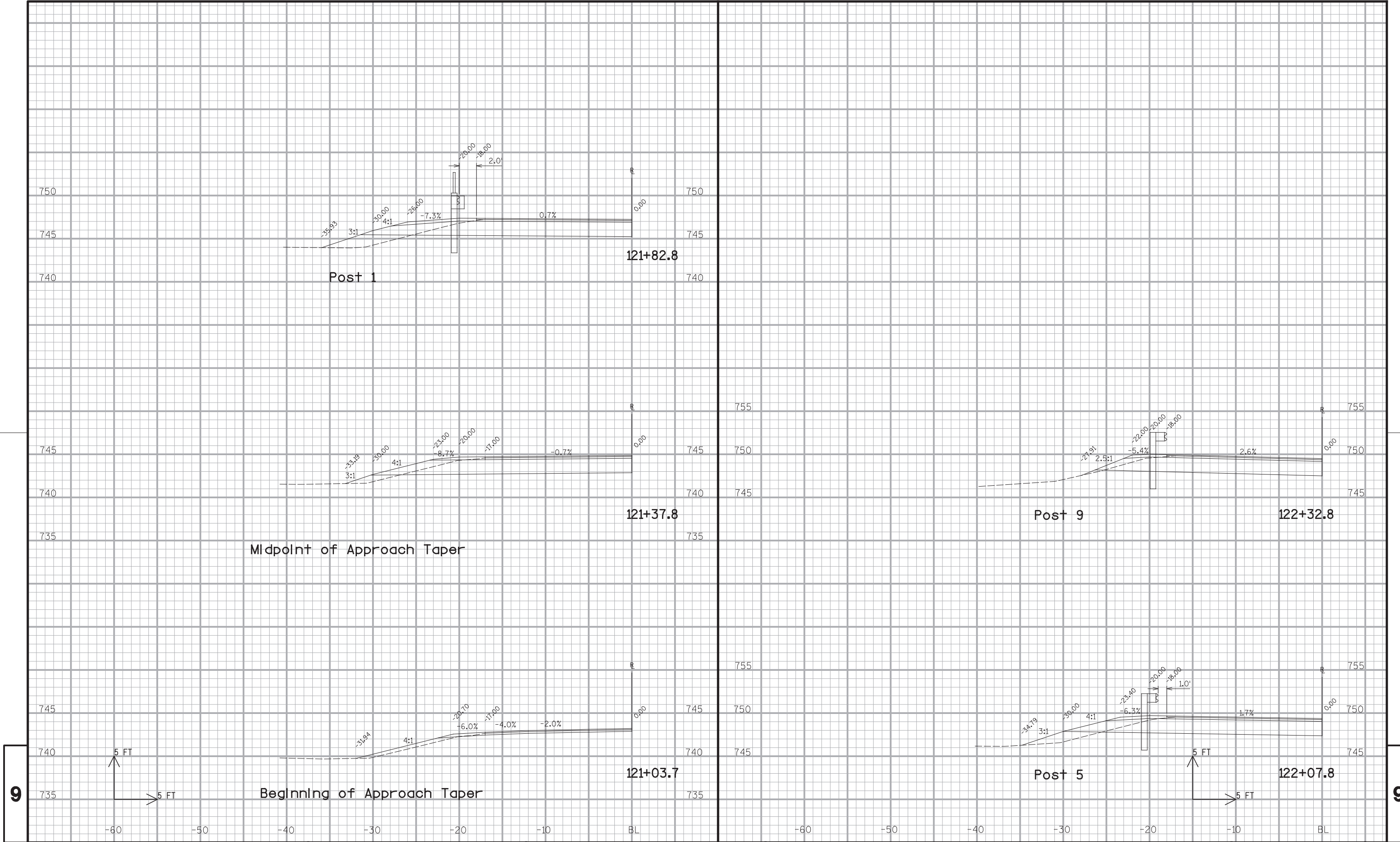
SECTION B

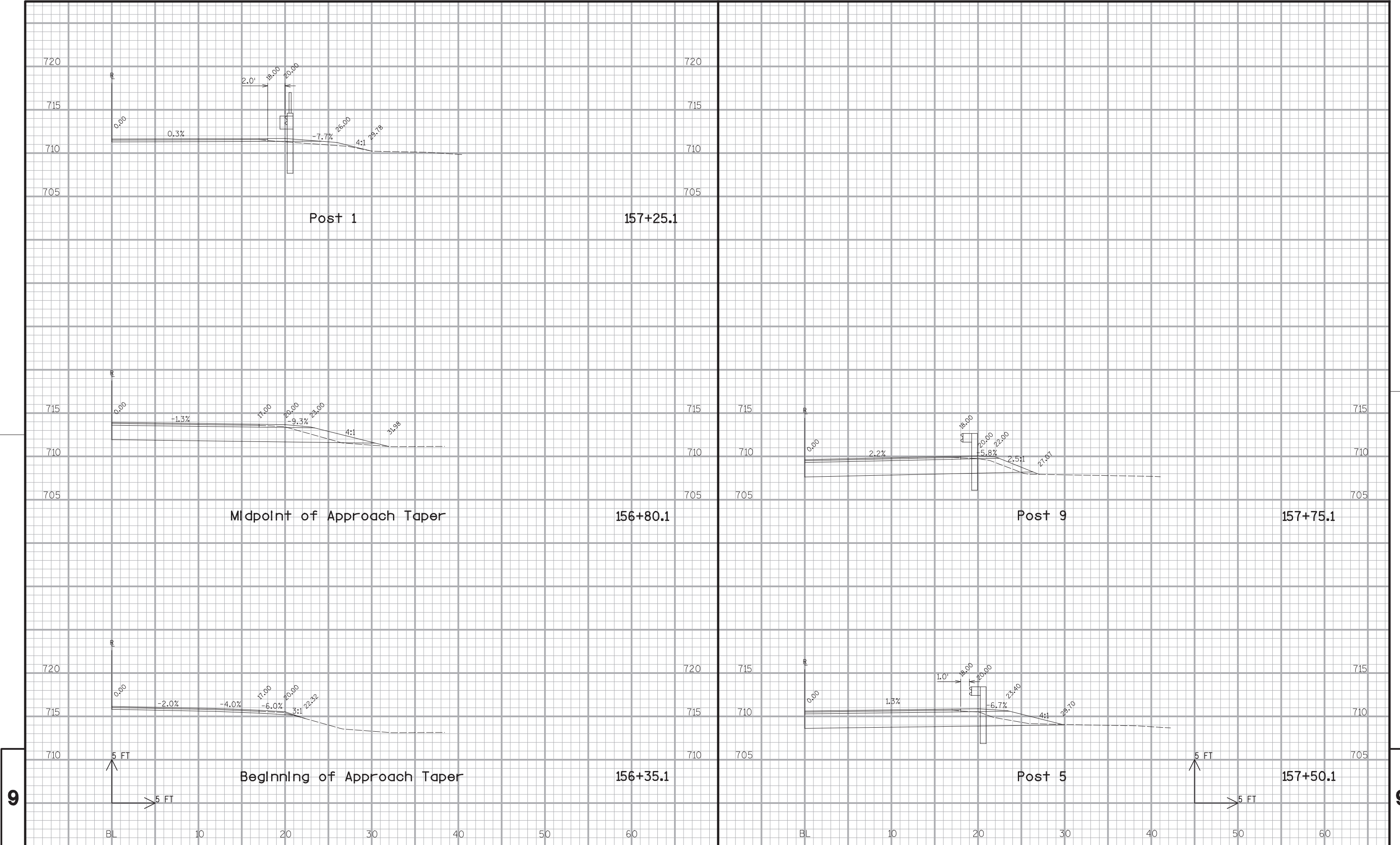


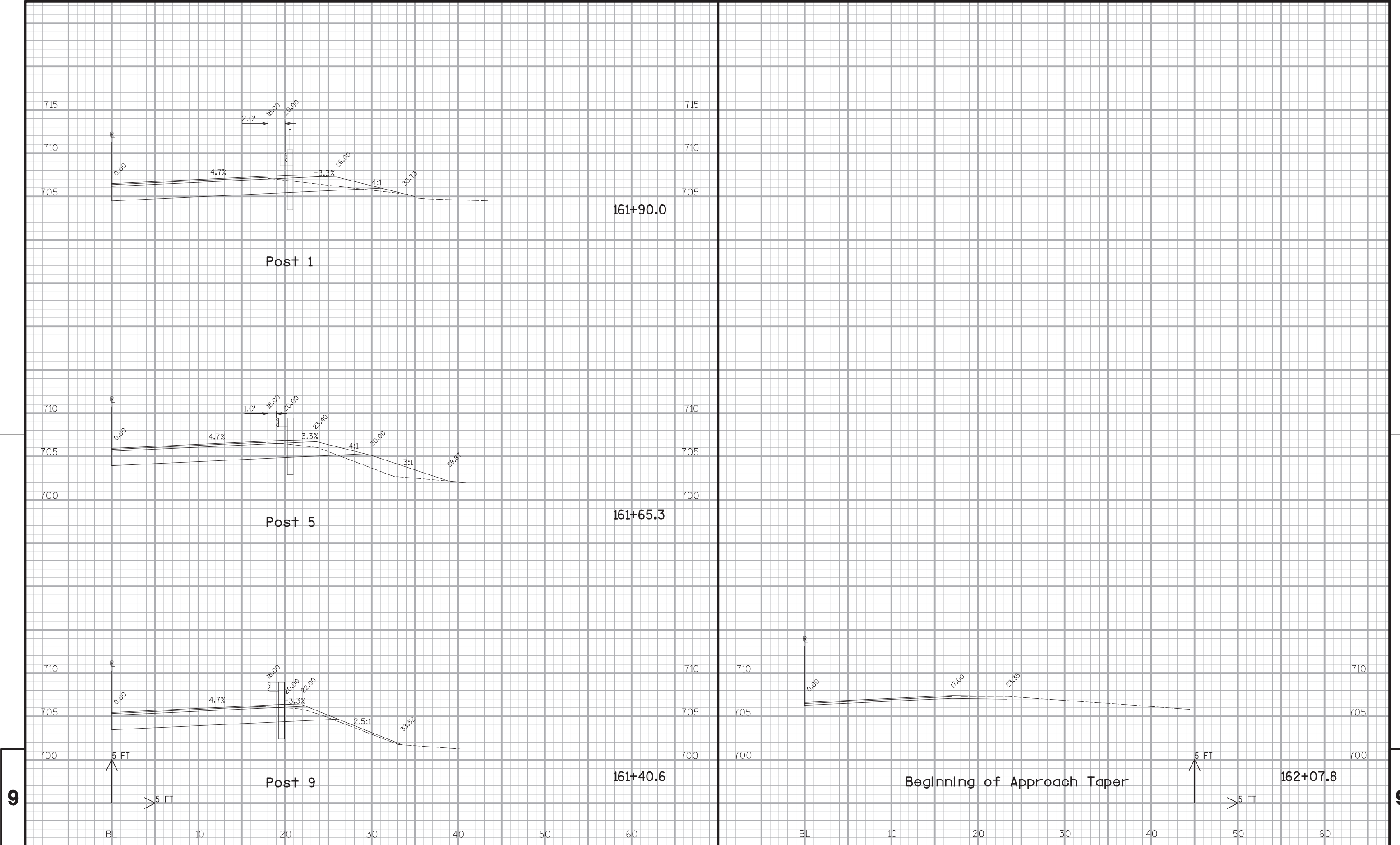
SECTION C

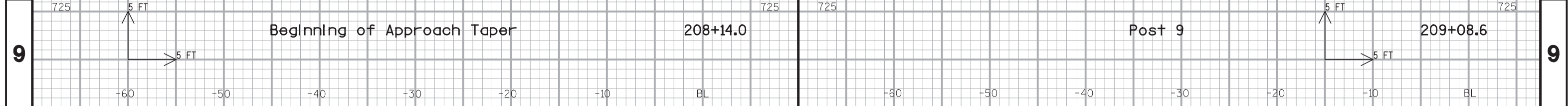
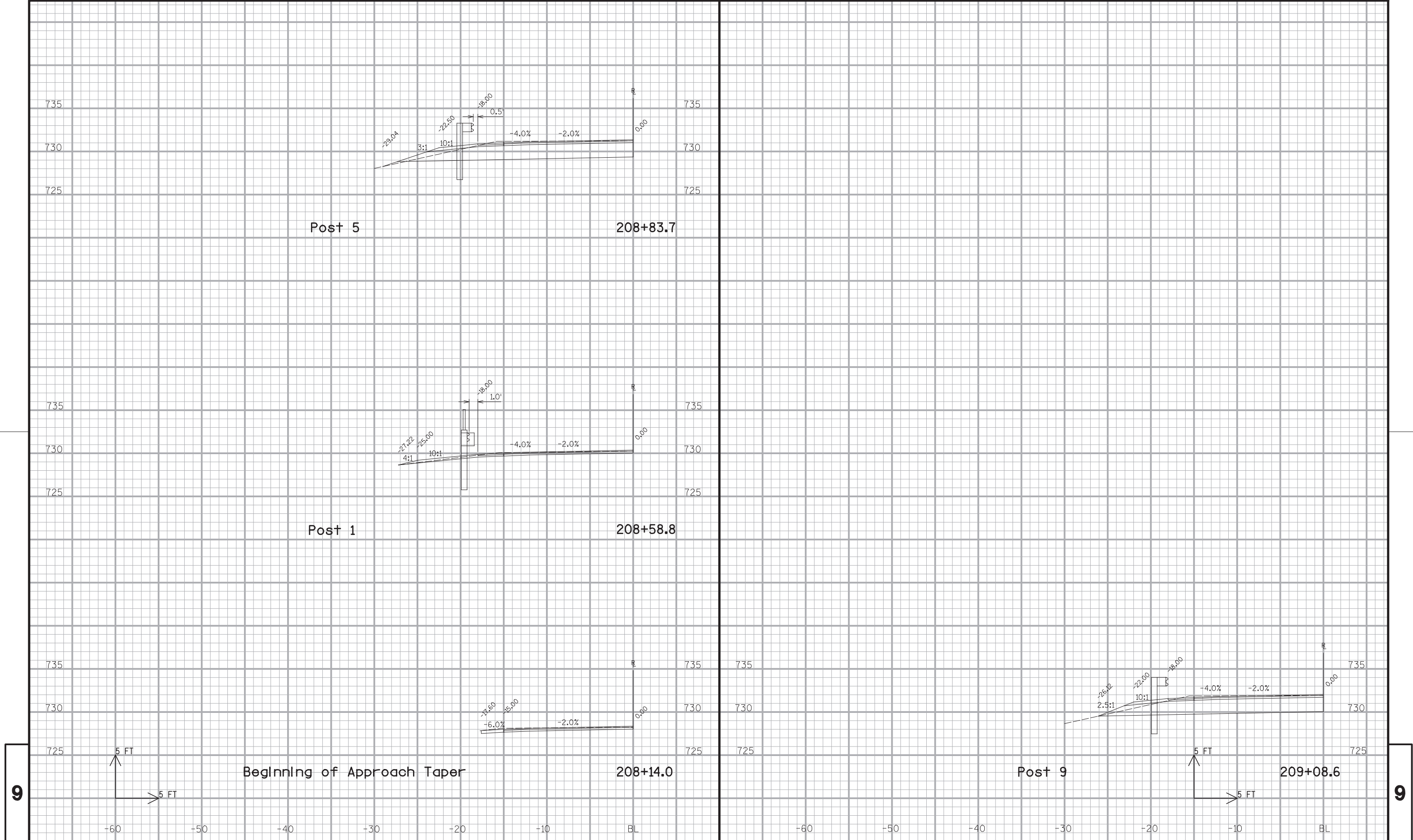


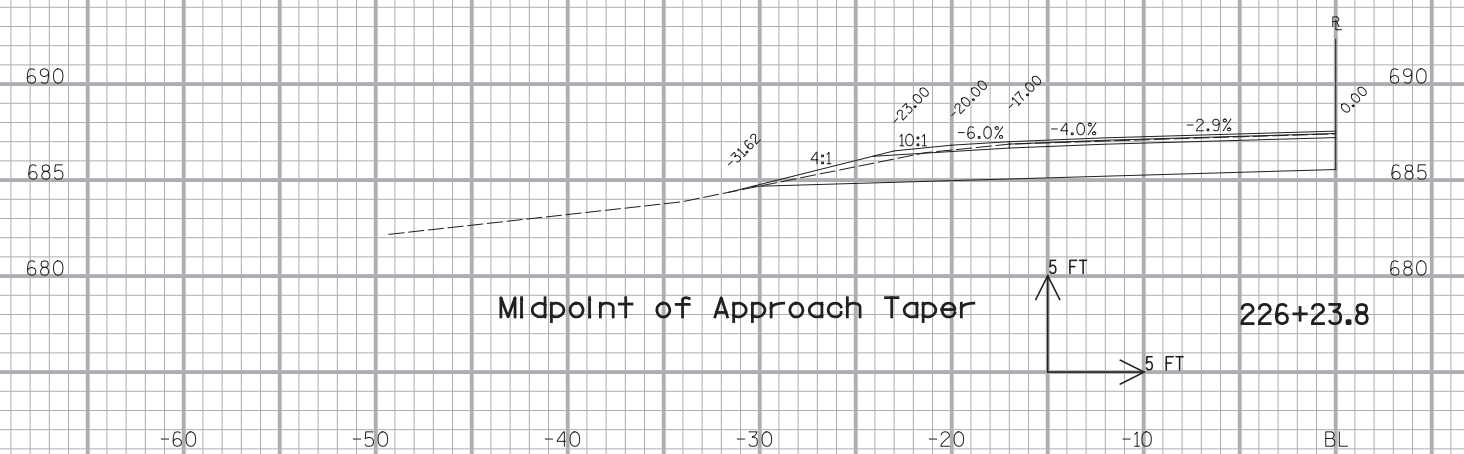
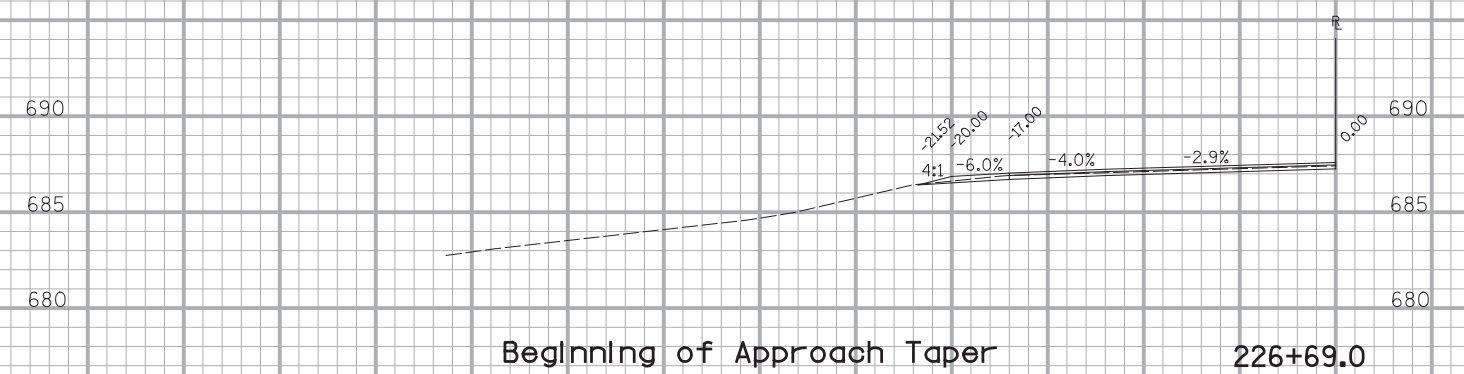
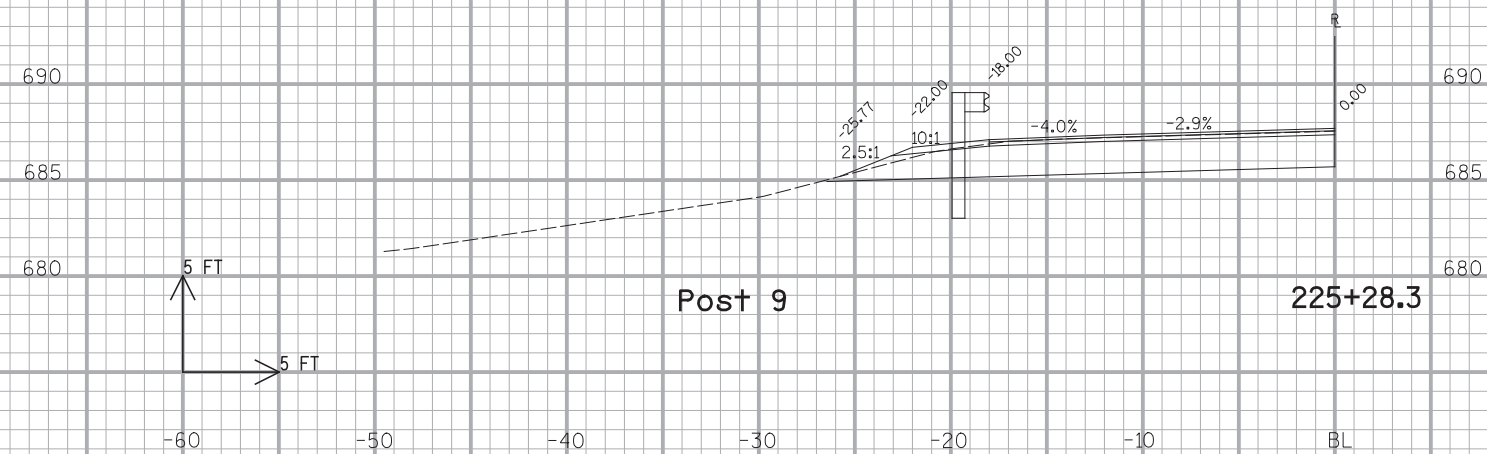
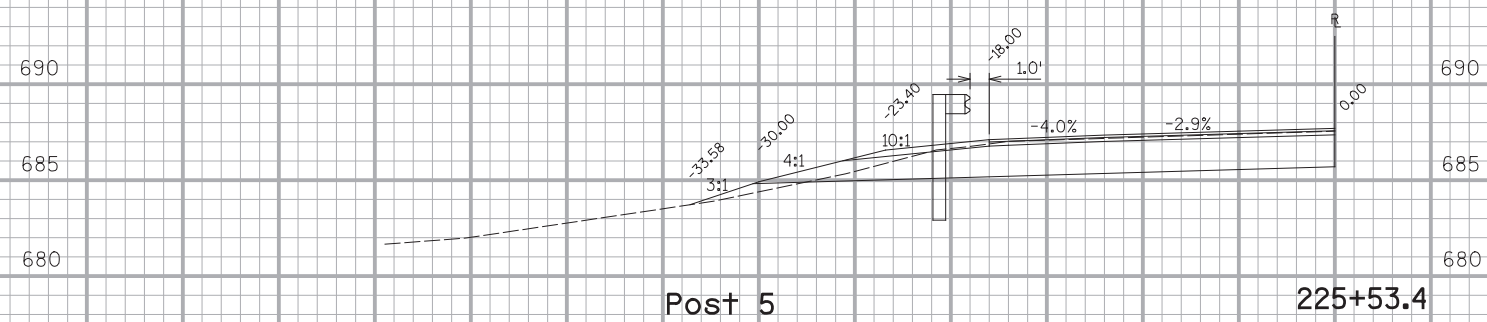
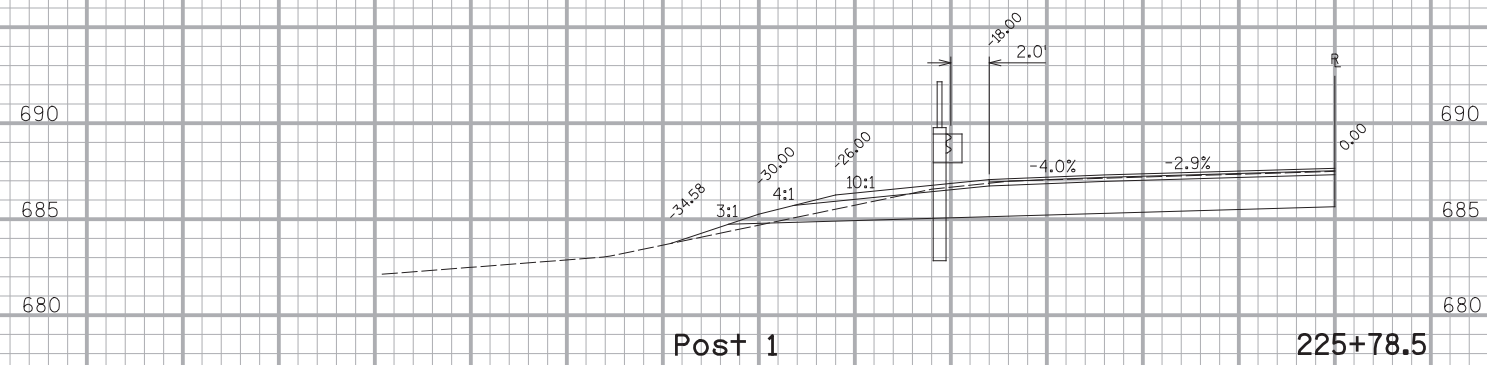


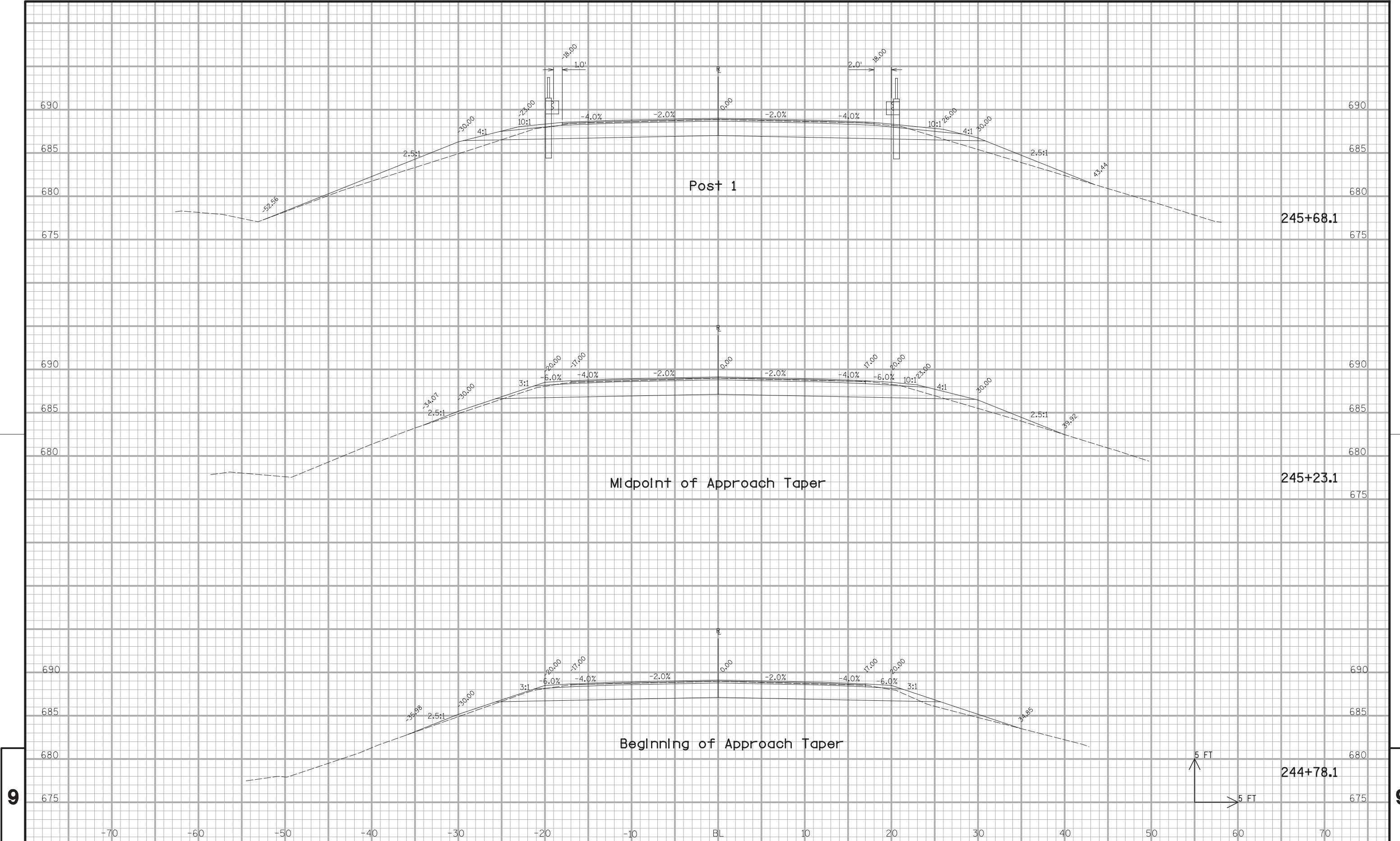


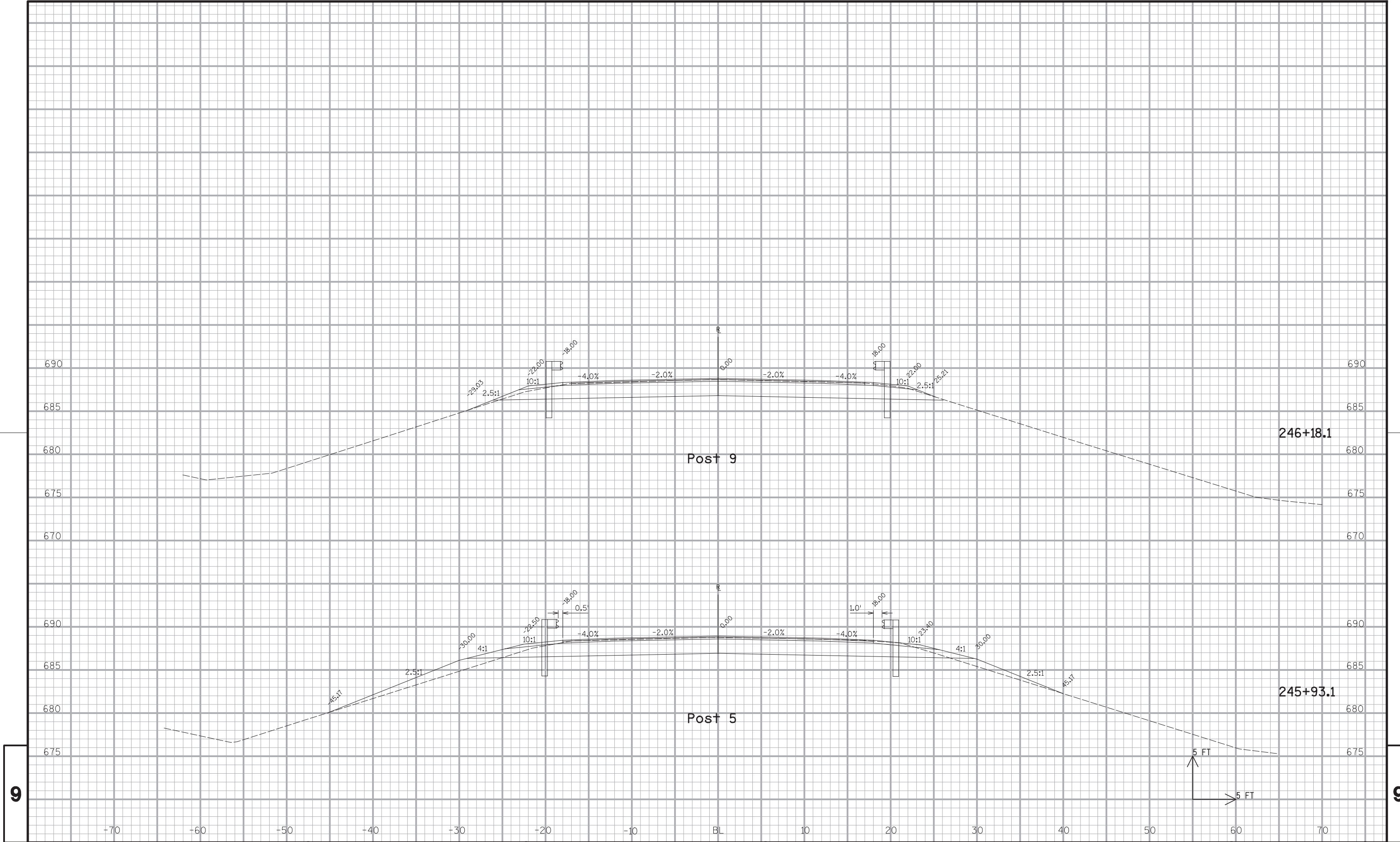


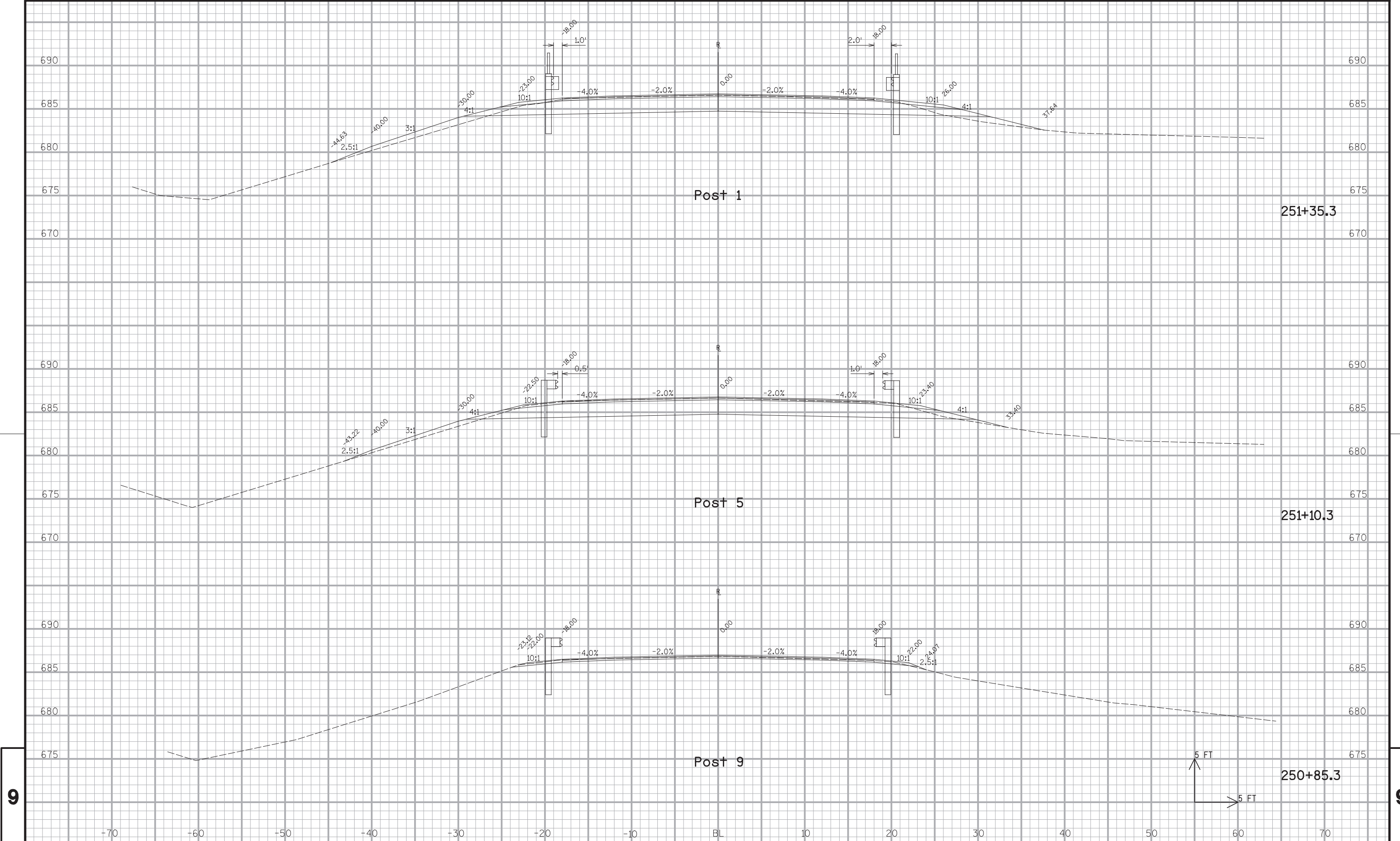




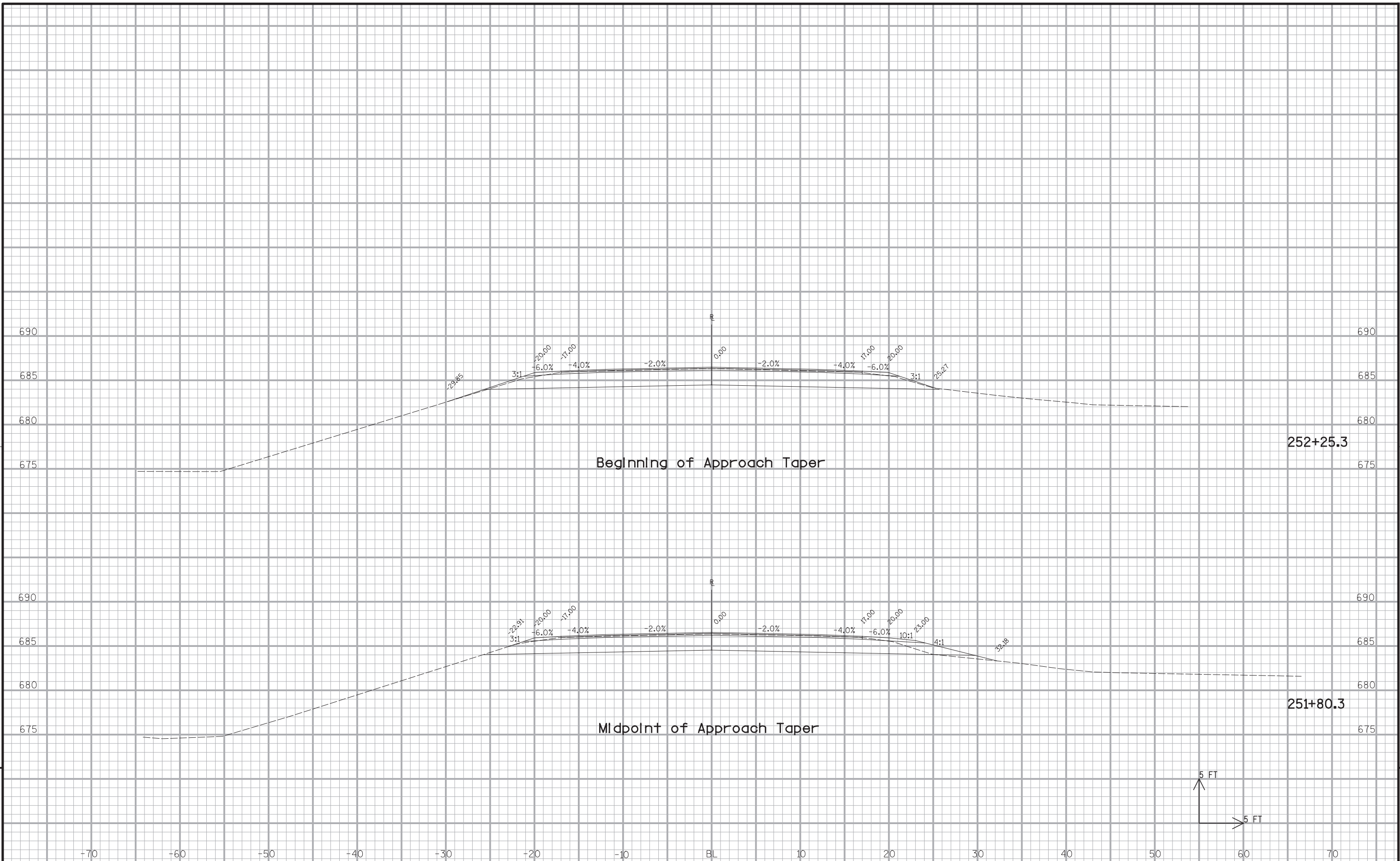




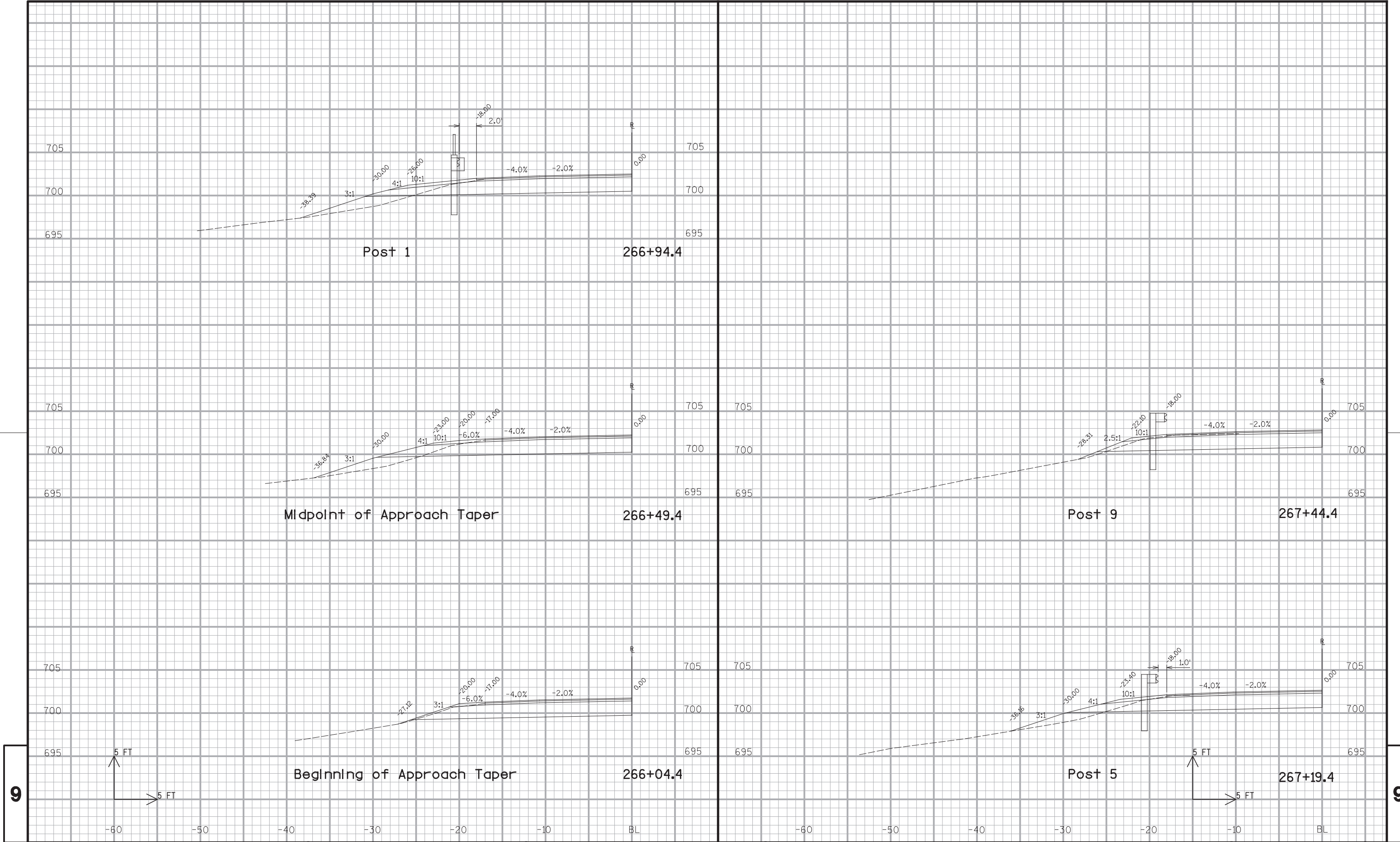


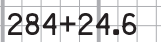
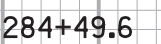
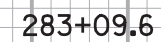
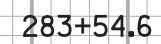
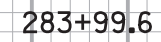


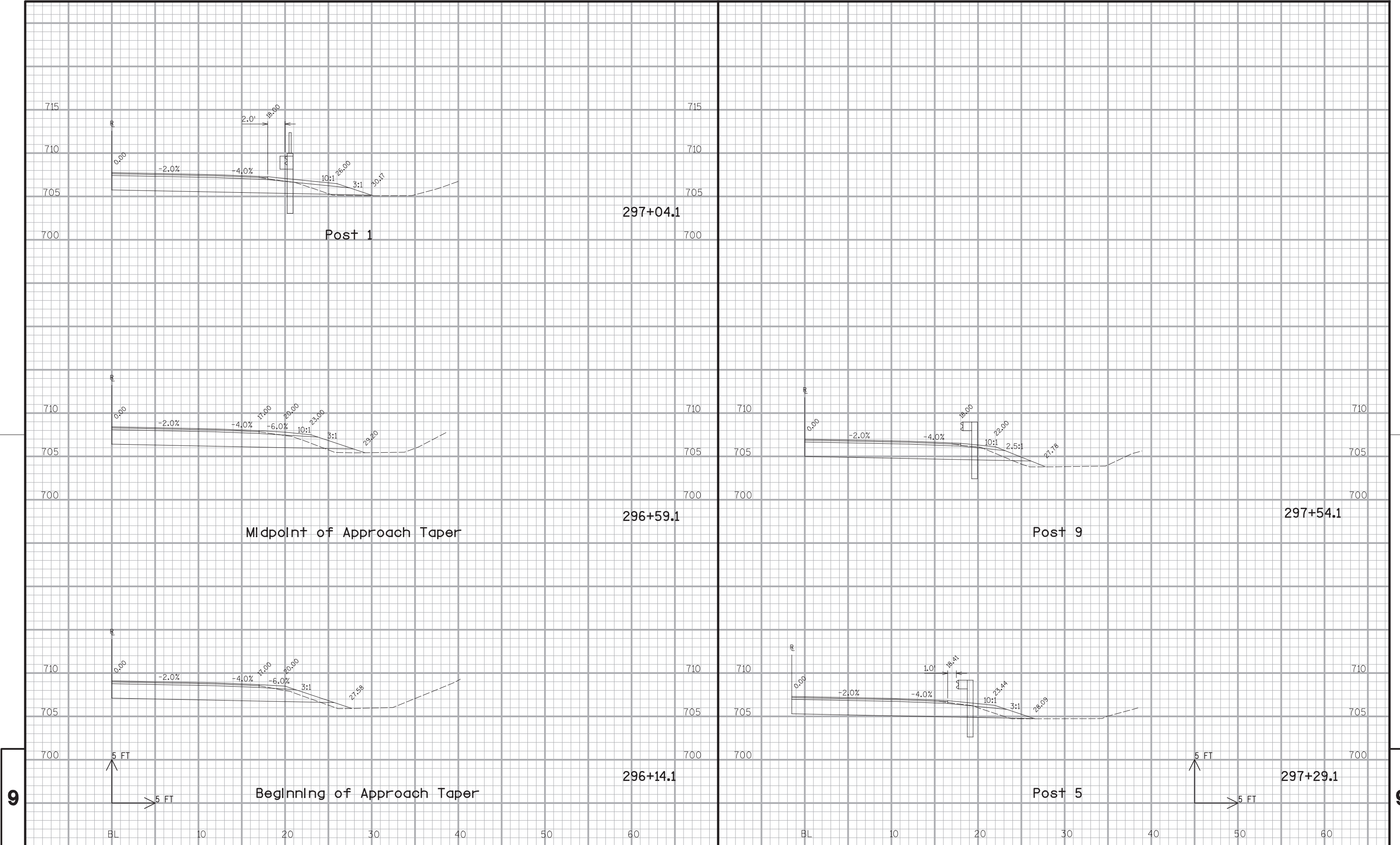
9

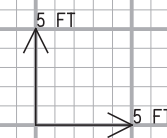
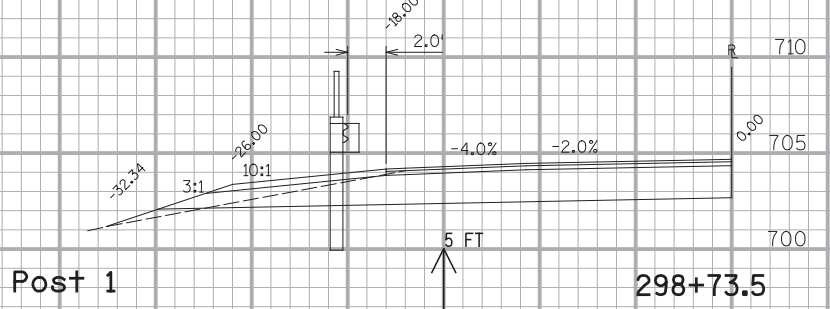
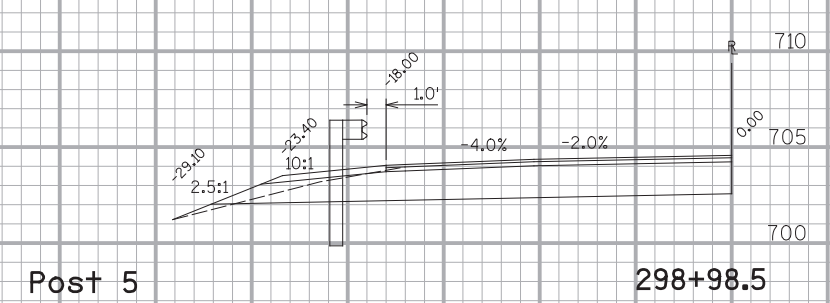
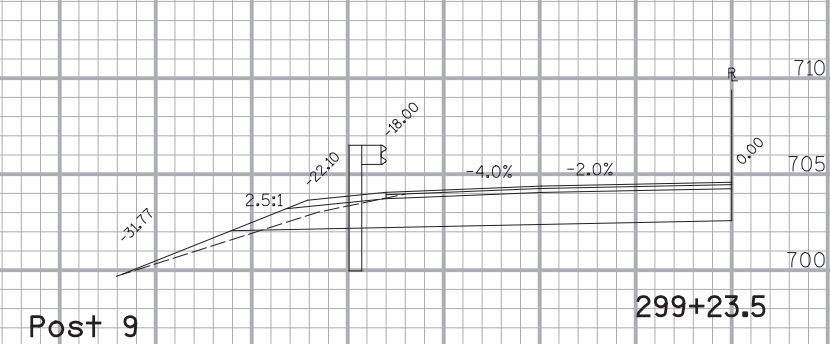
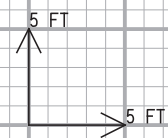
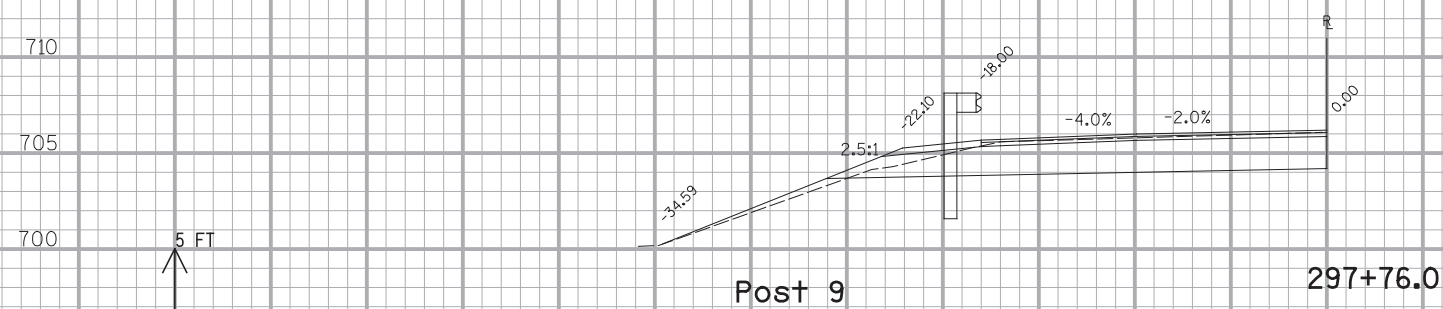
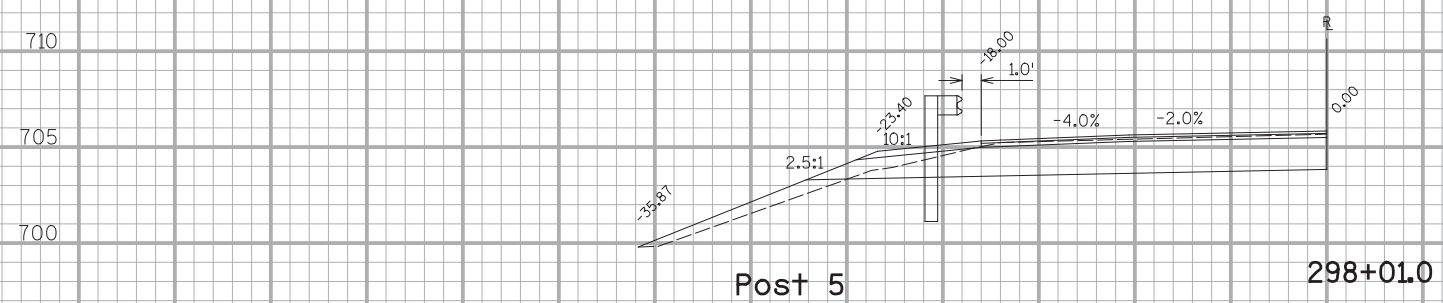
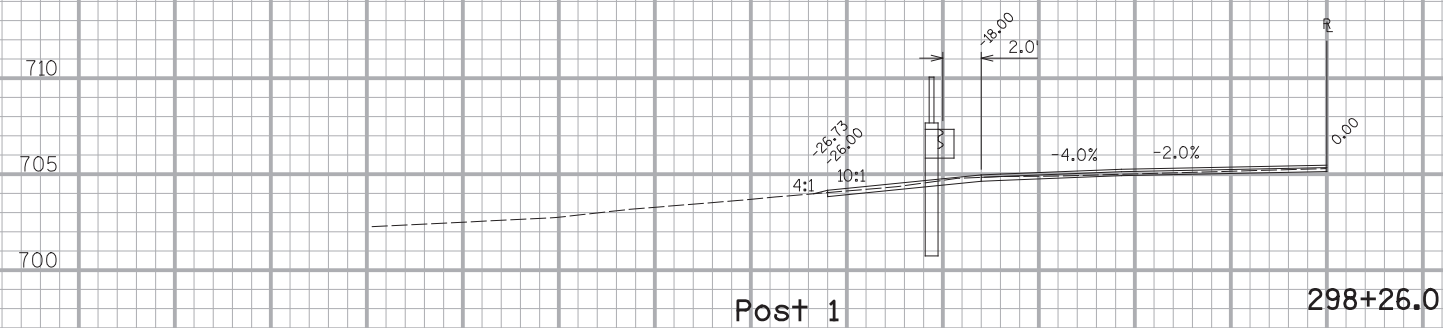


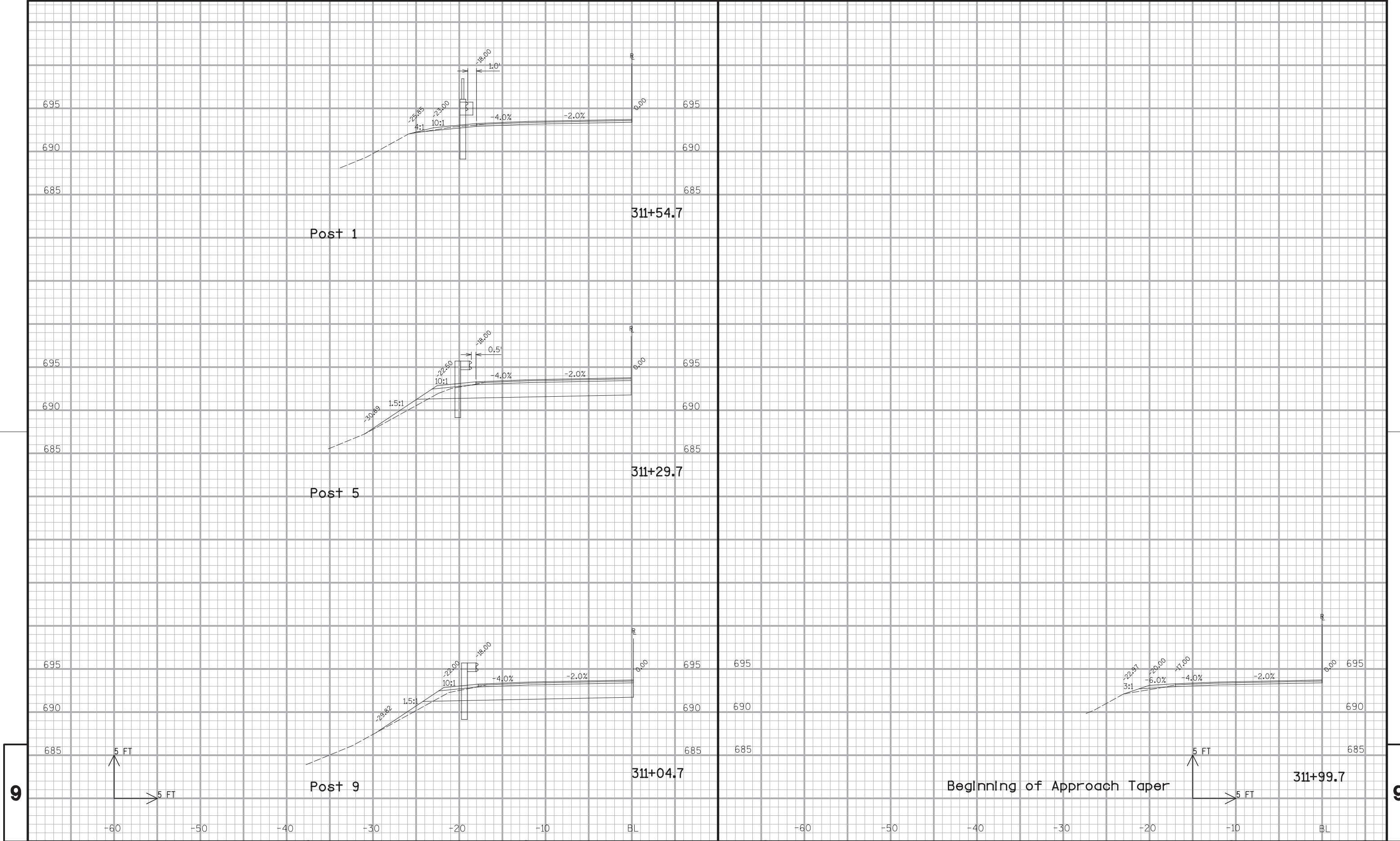
9

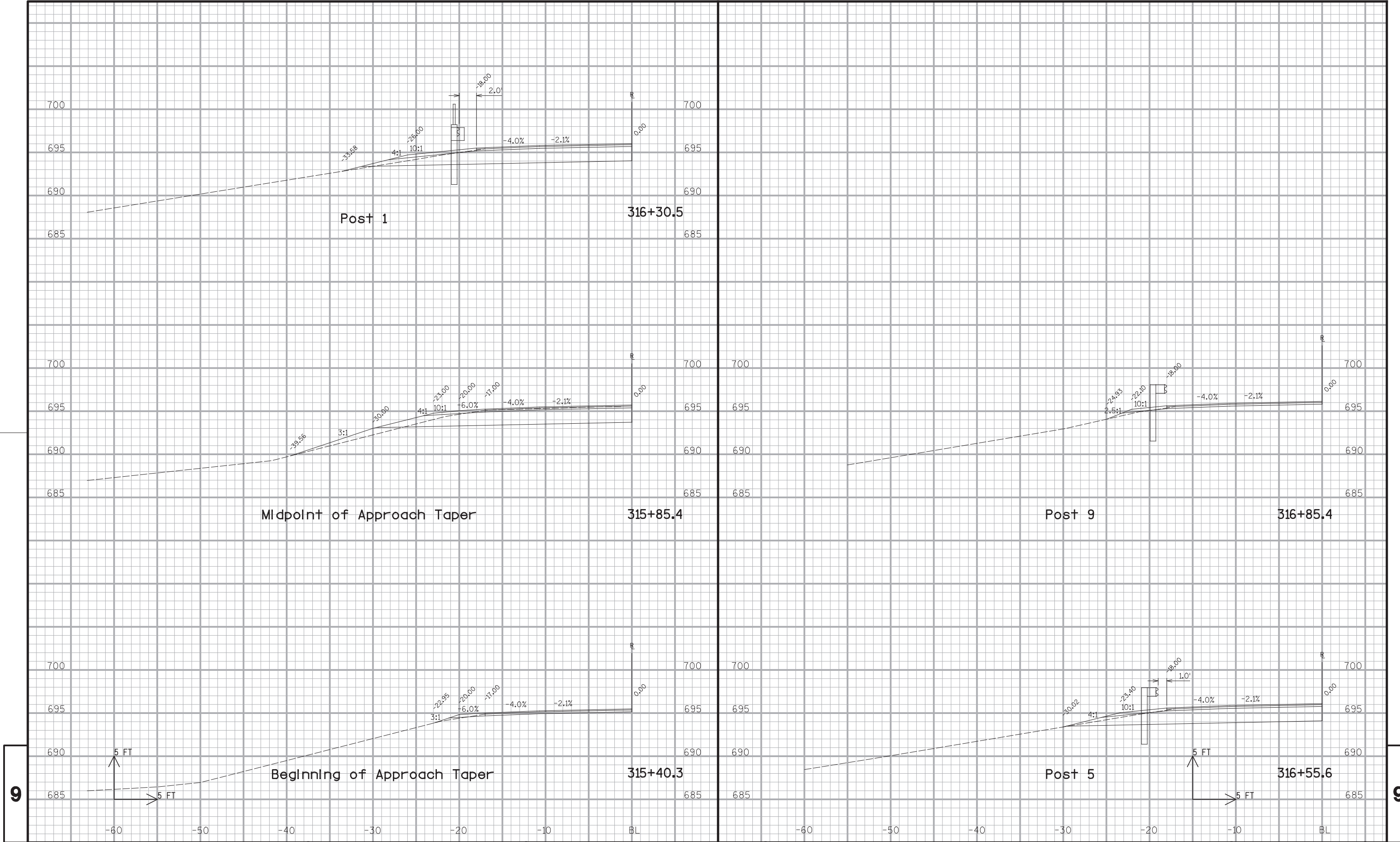




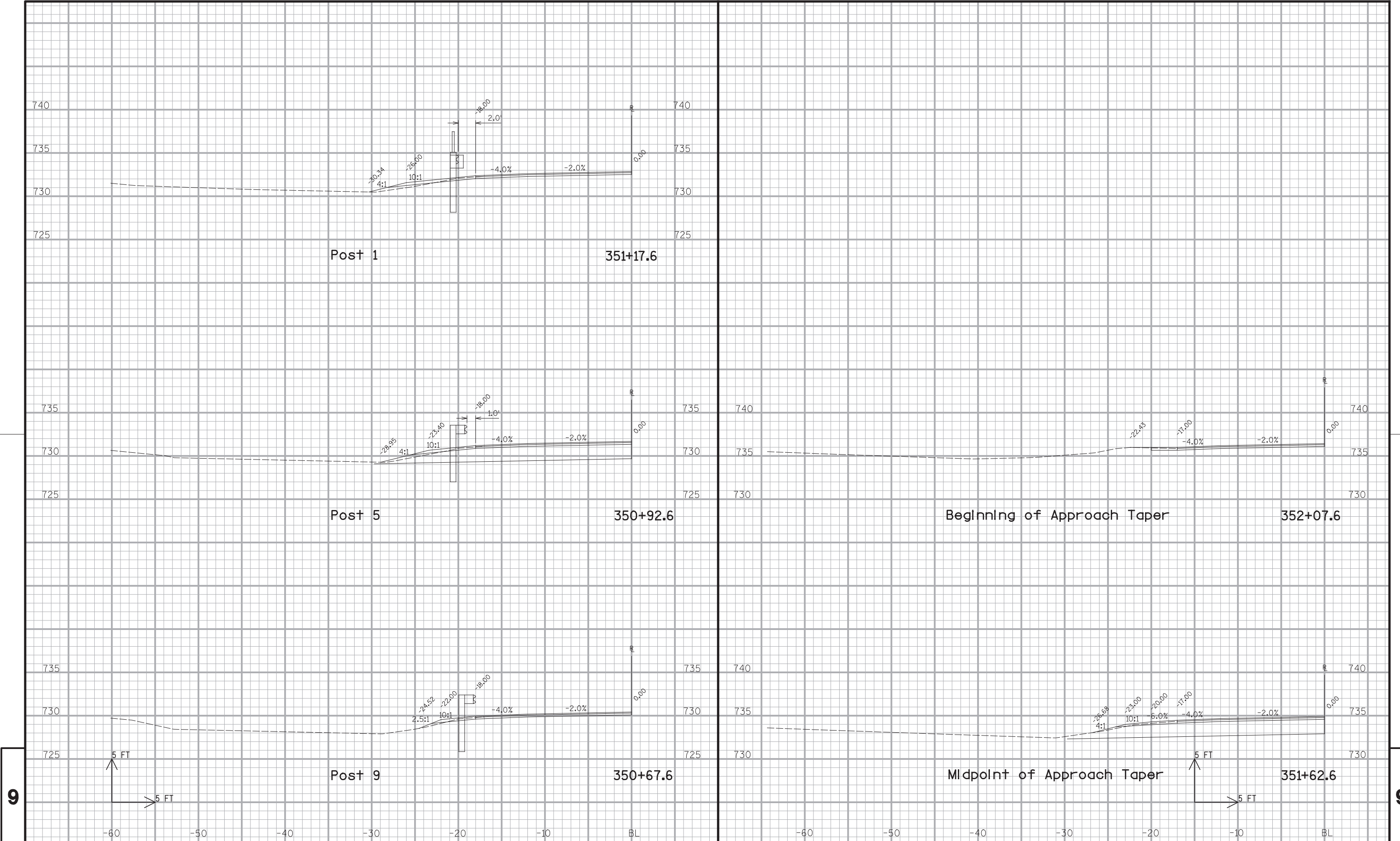






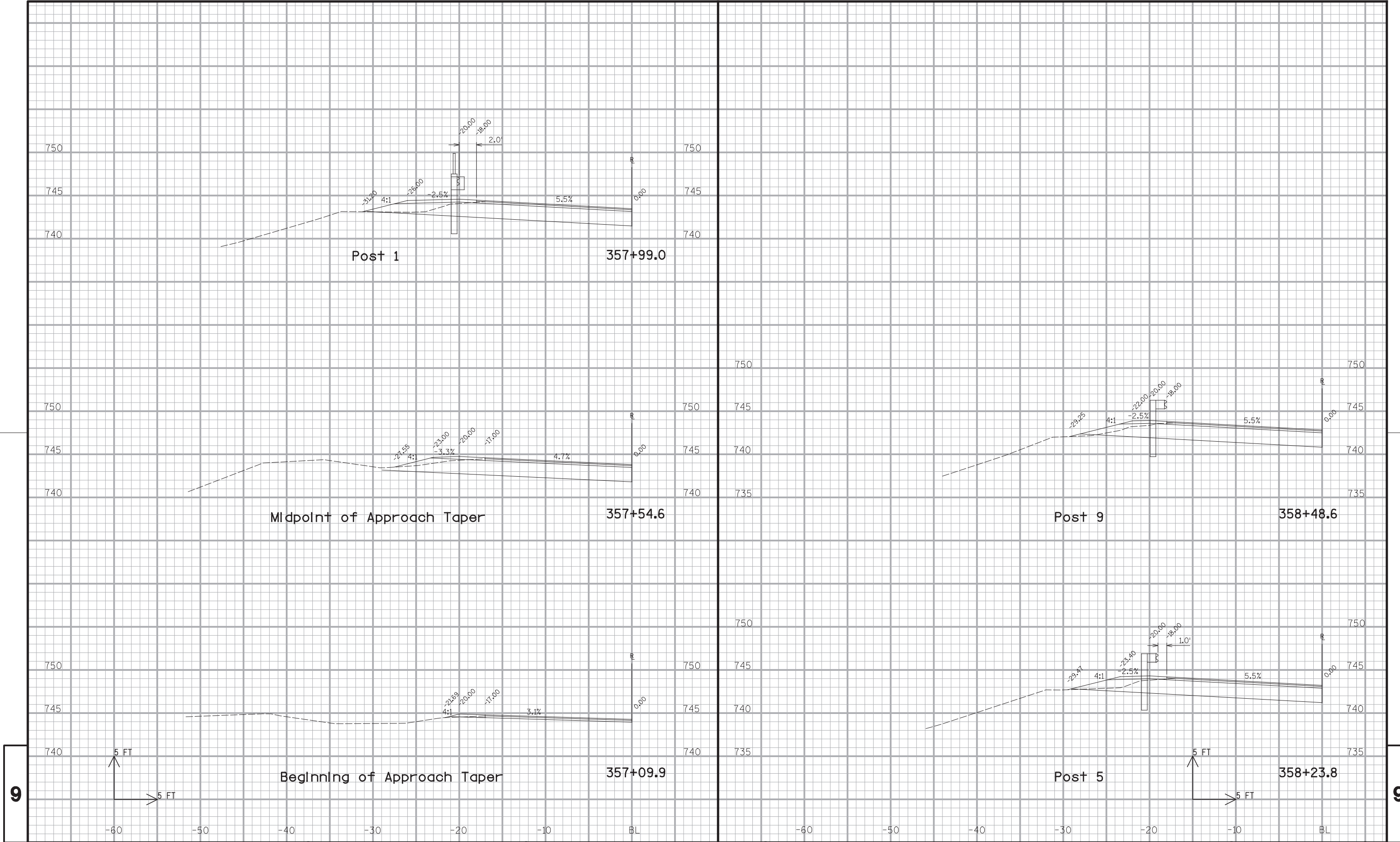


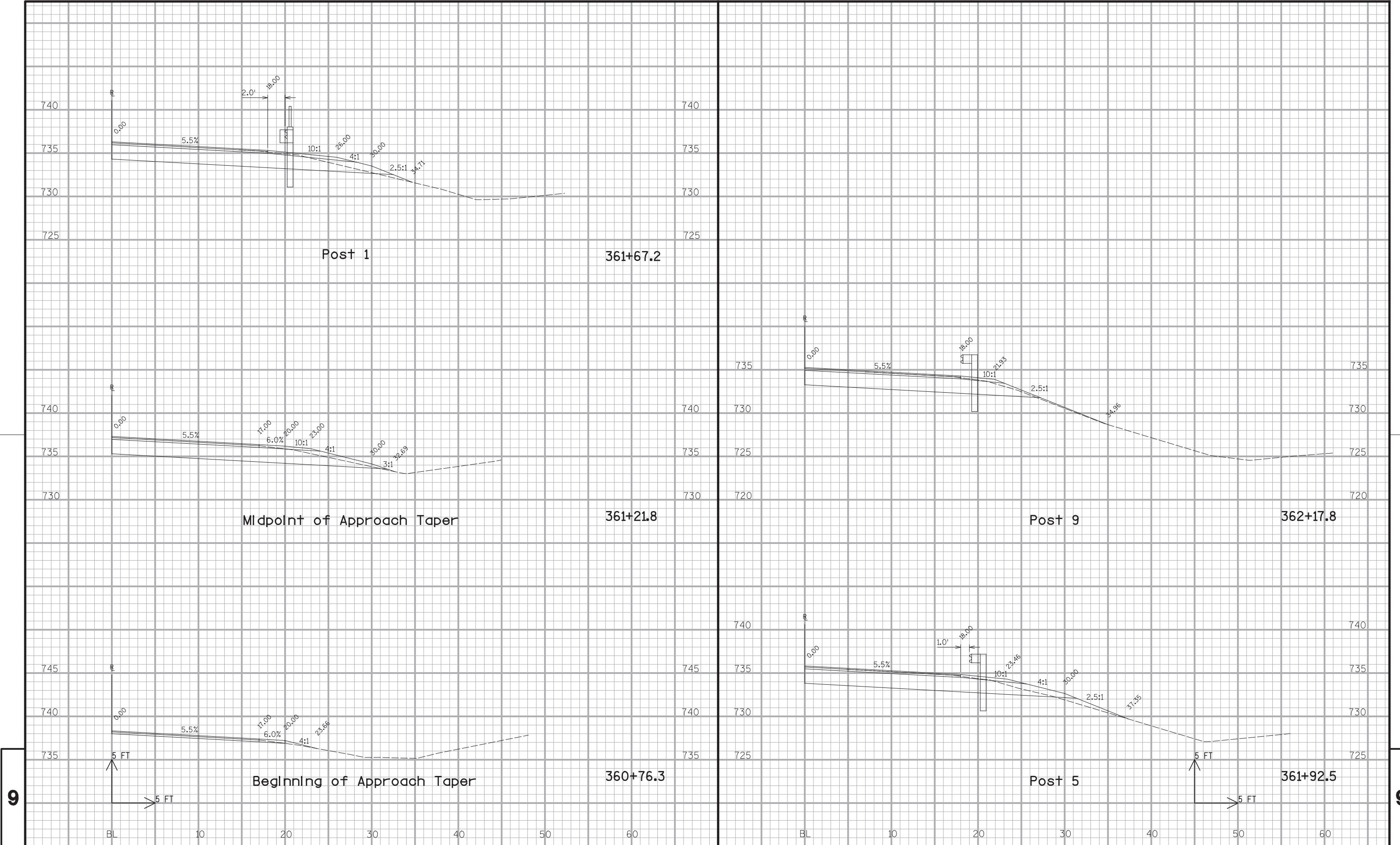


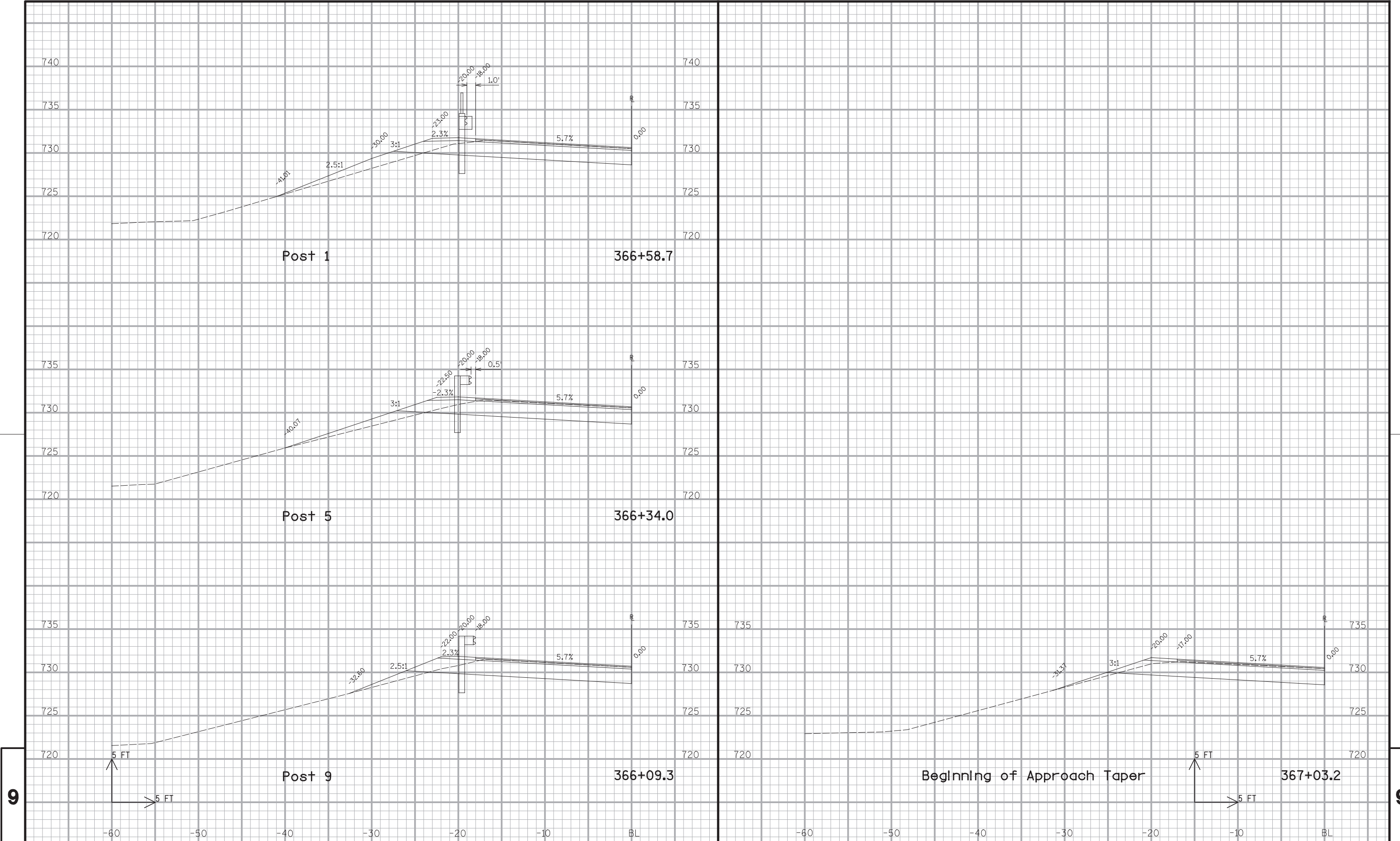


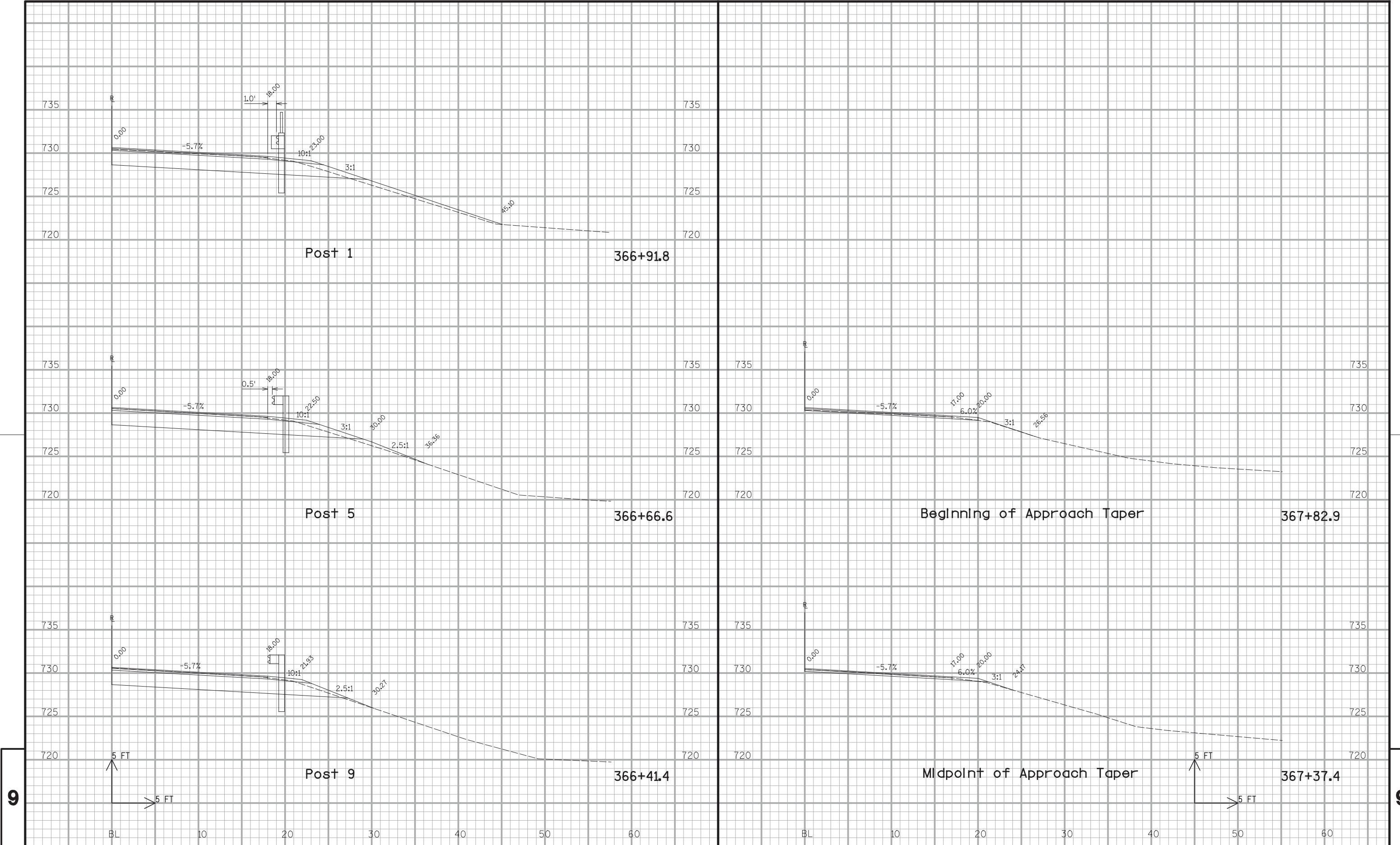
9

9









PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 366+91.9

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

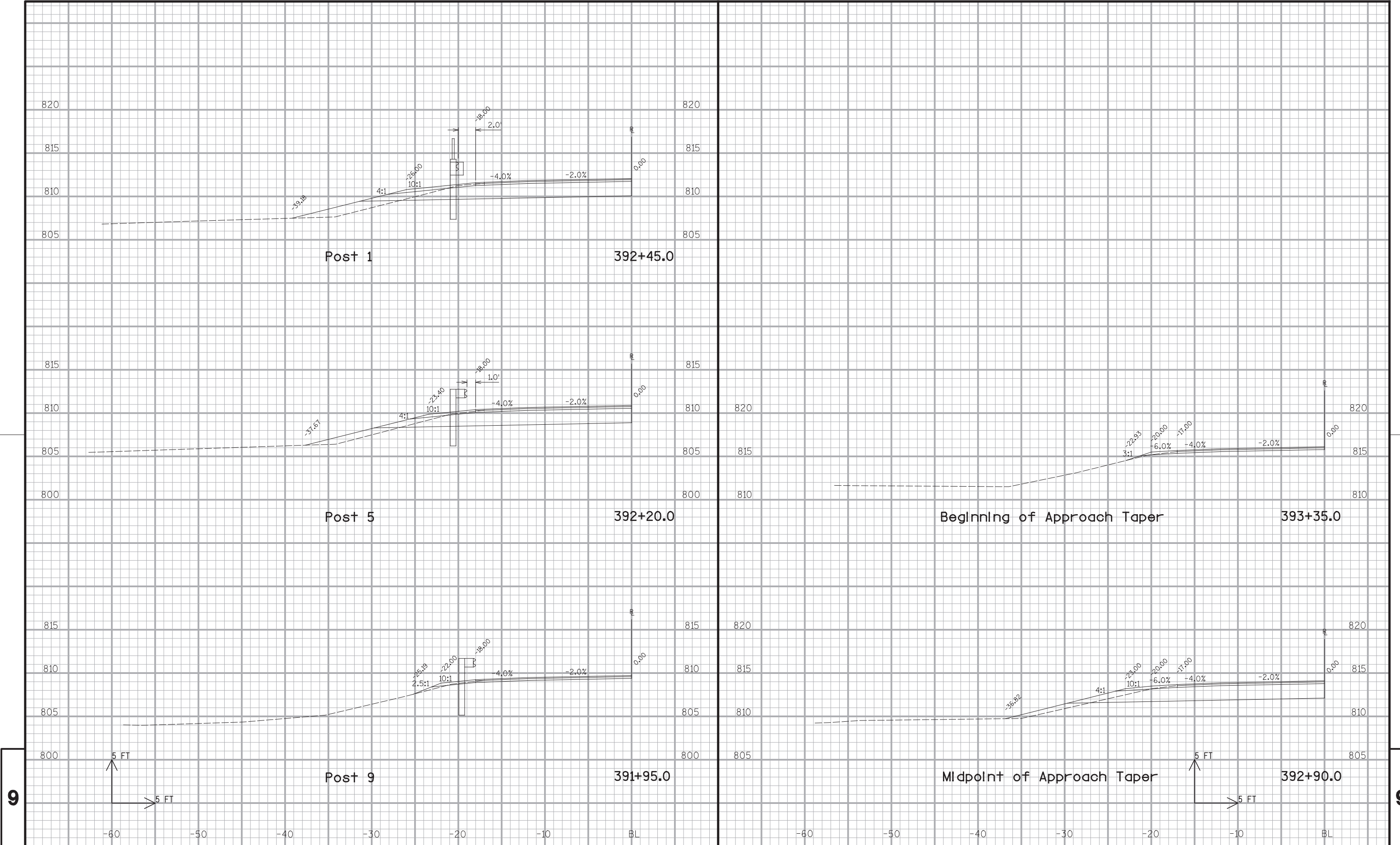
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAL 271

ET 21



9

9

PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 392+45.0

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

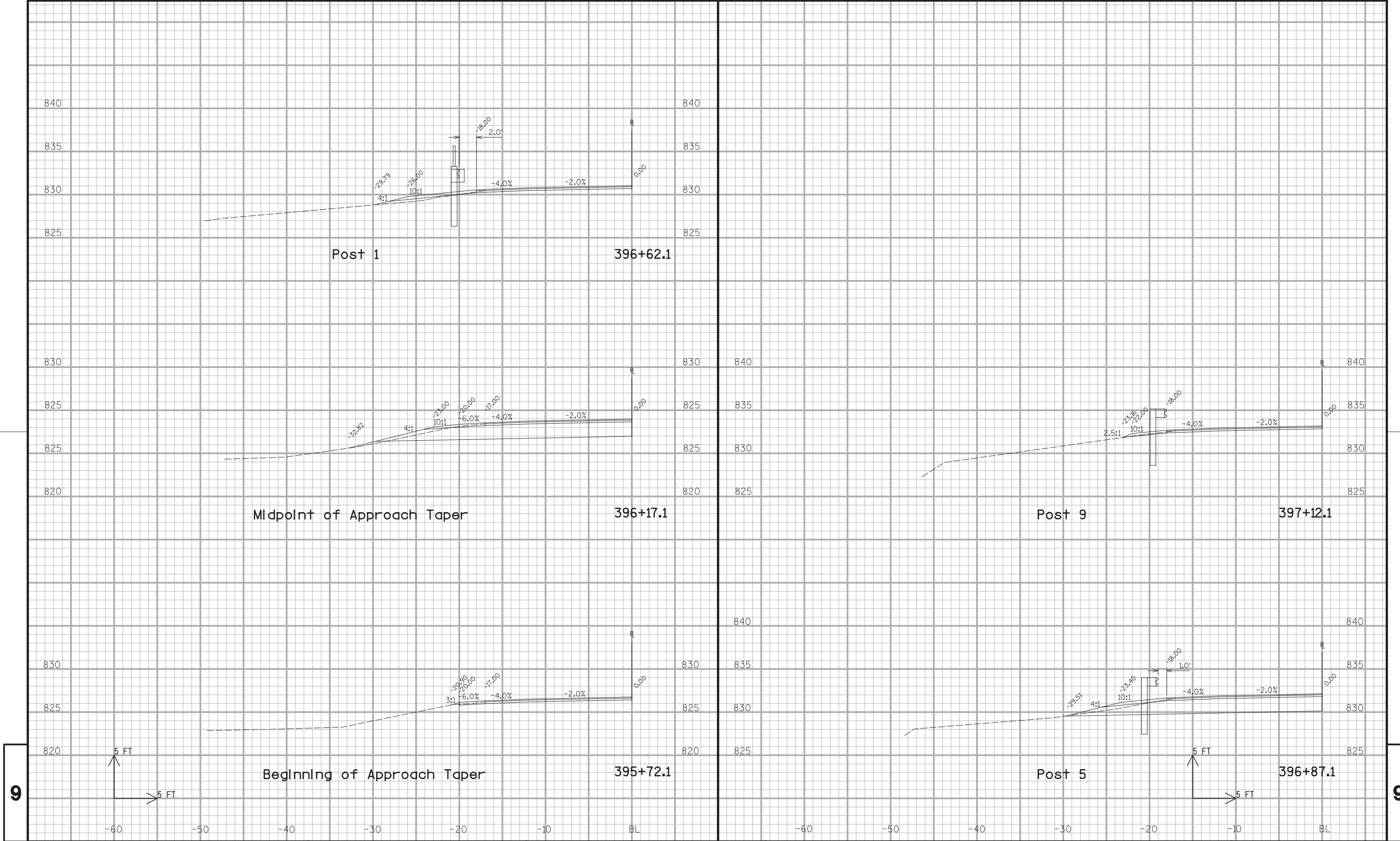
PLOT BY : \$\$...plotuser...\$\$

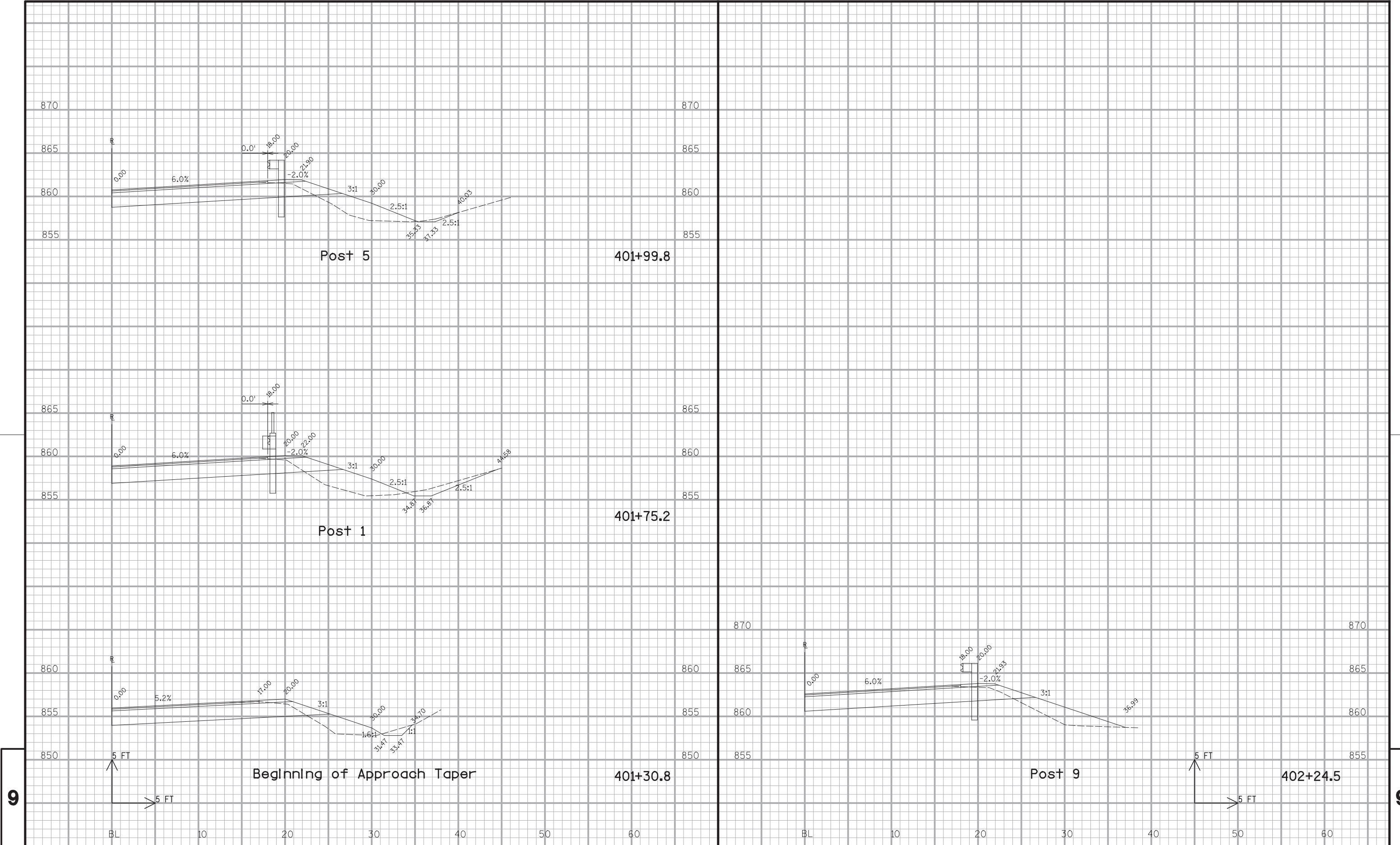
PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAL 273

ET 21





PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 401+75.2

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

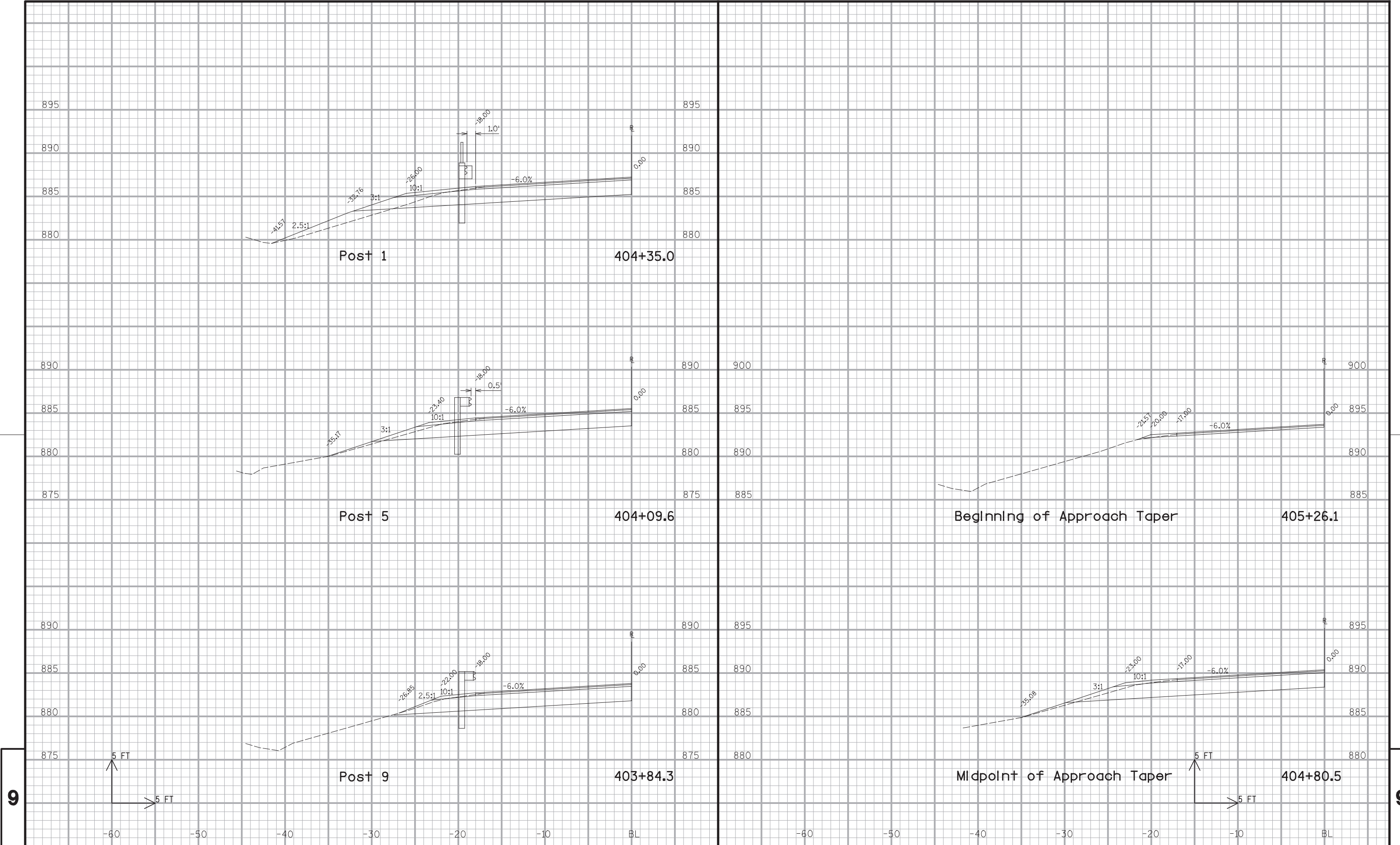
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

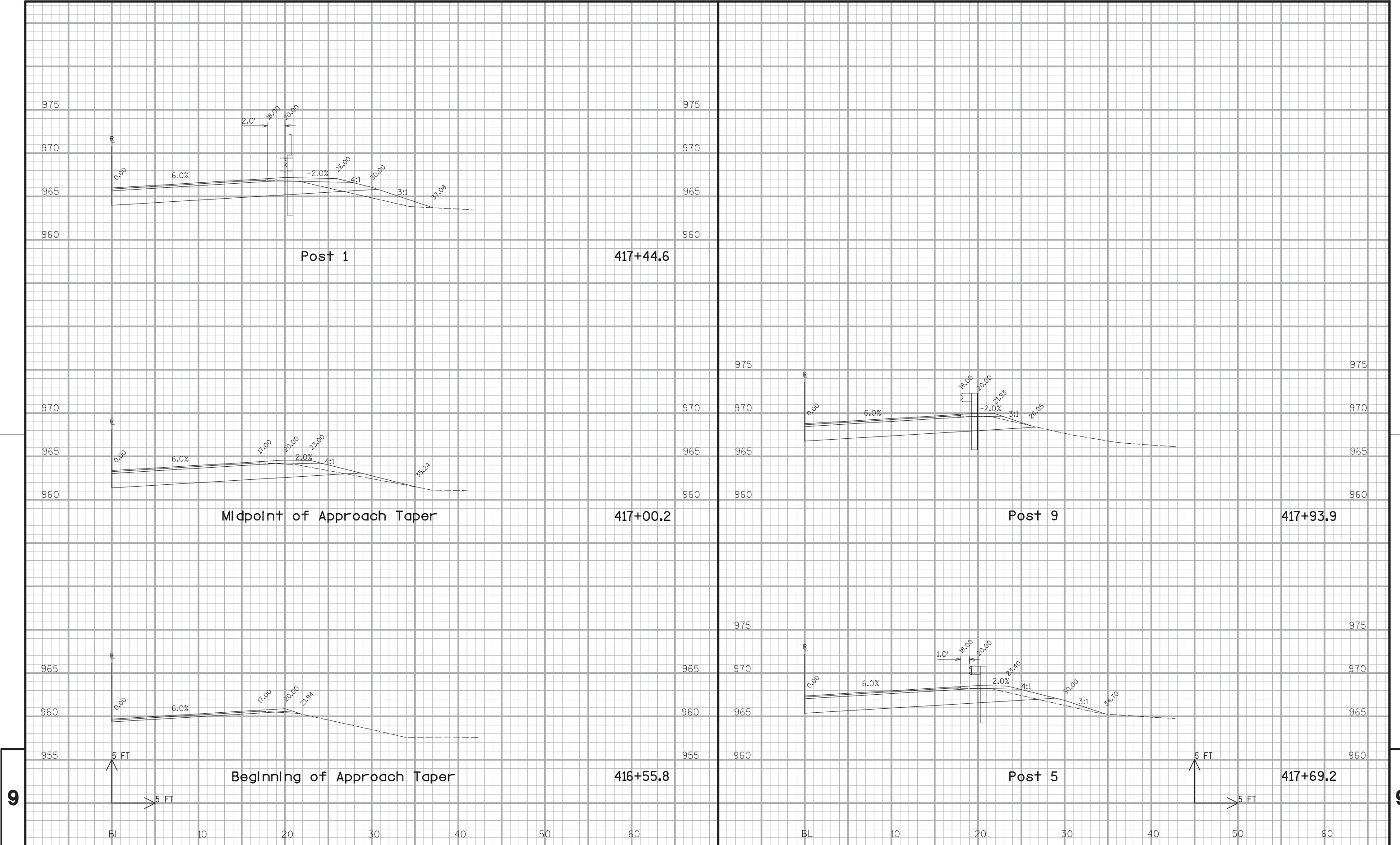
WISDOT/CAL 275

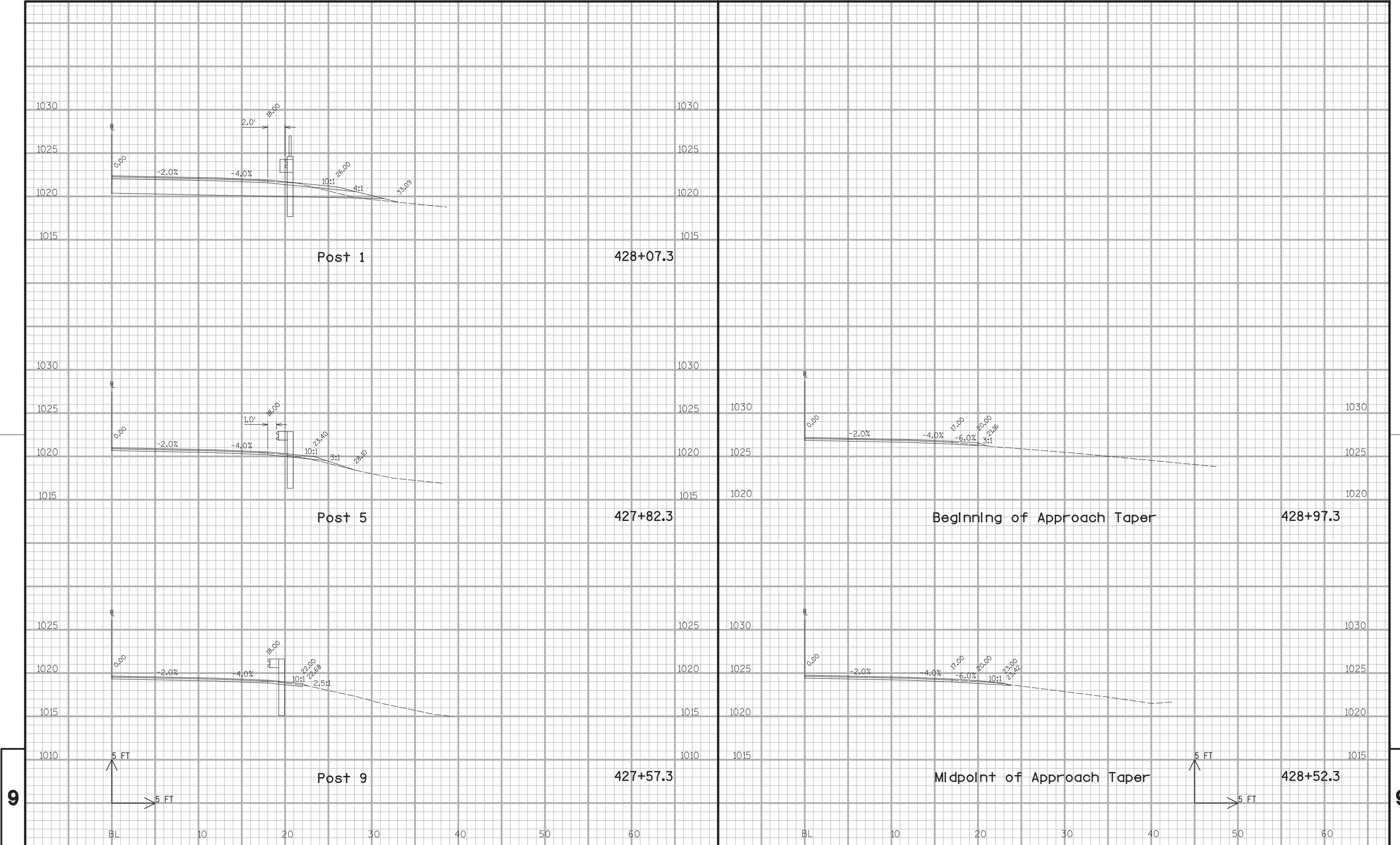
ET 21

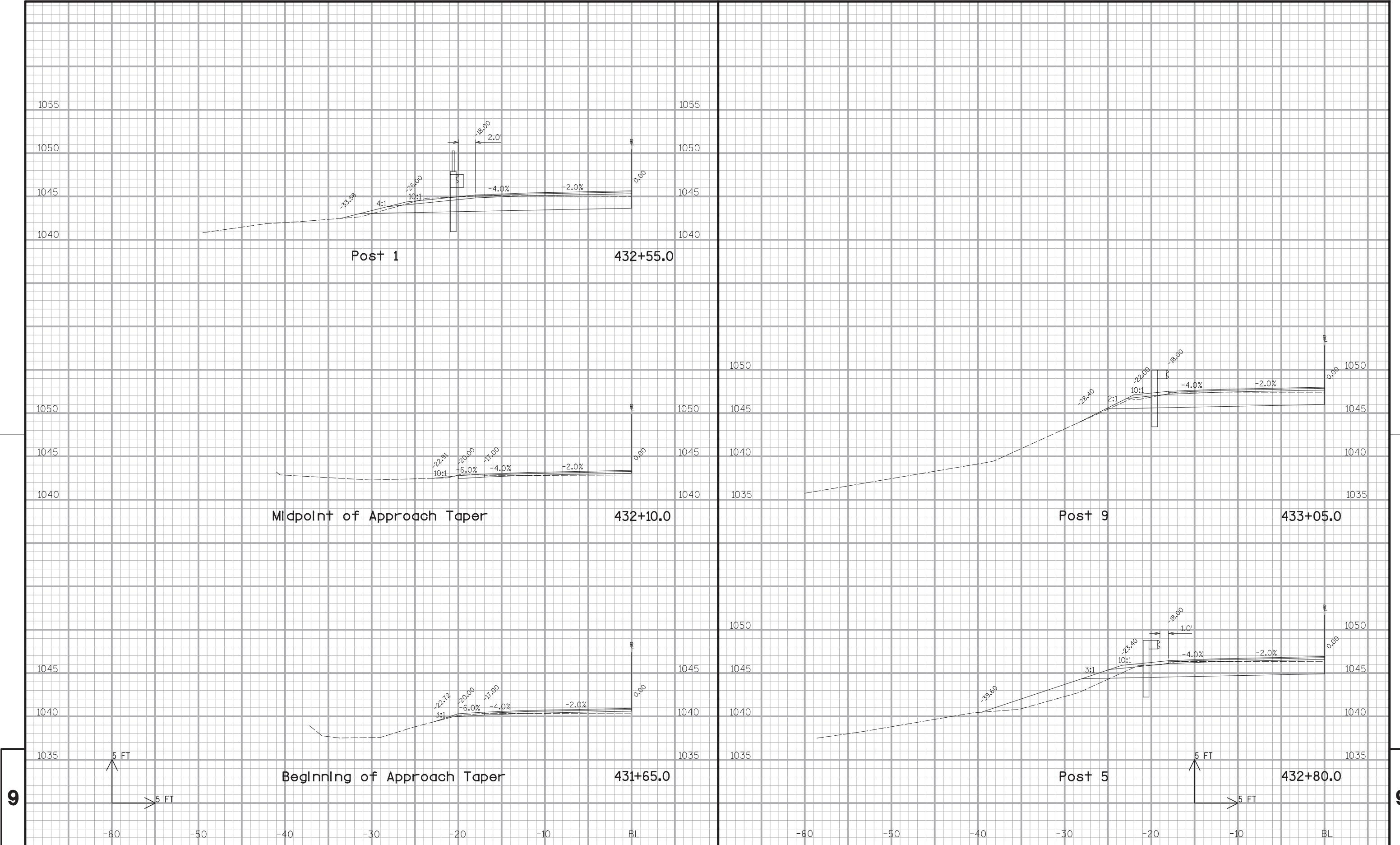


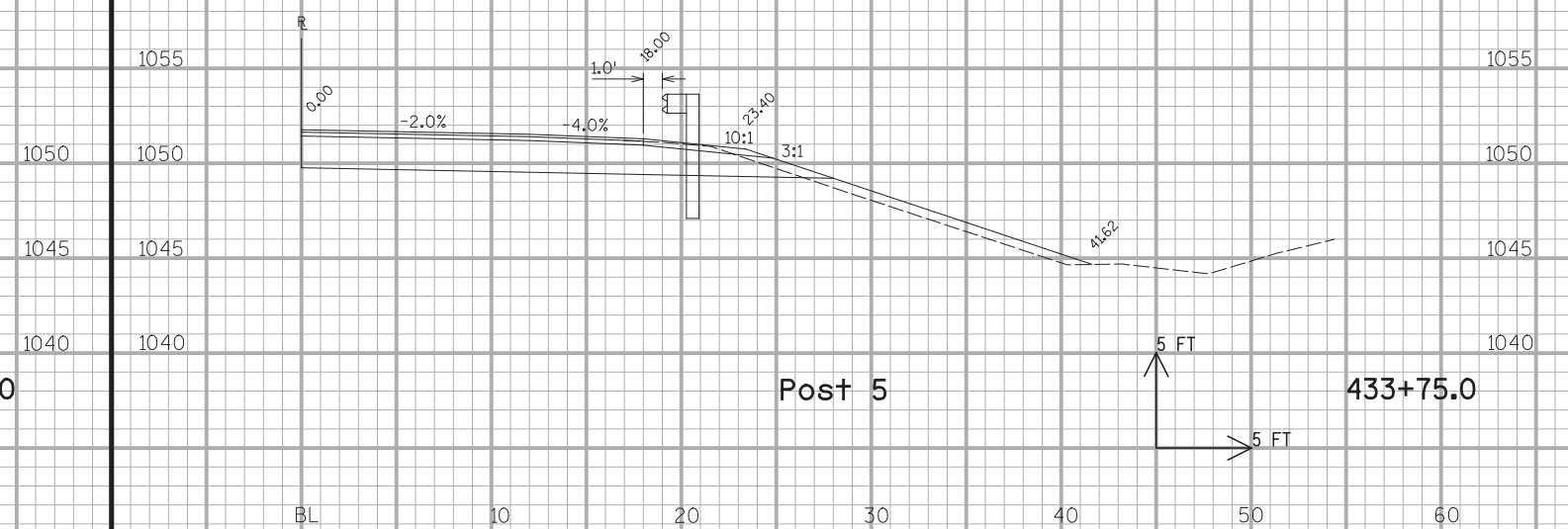
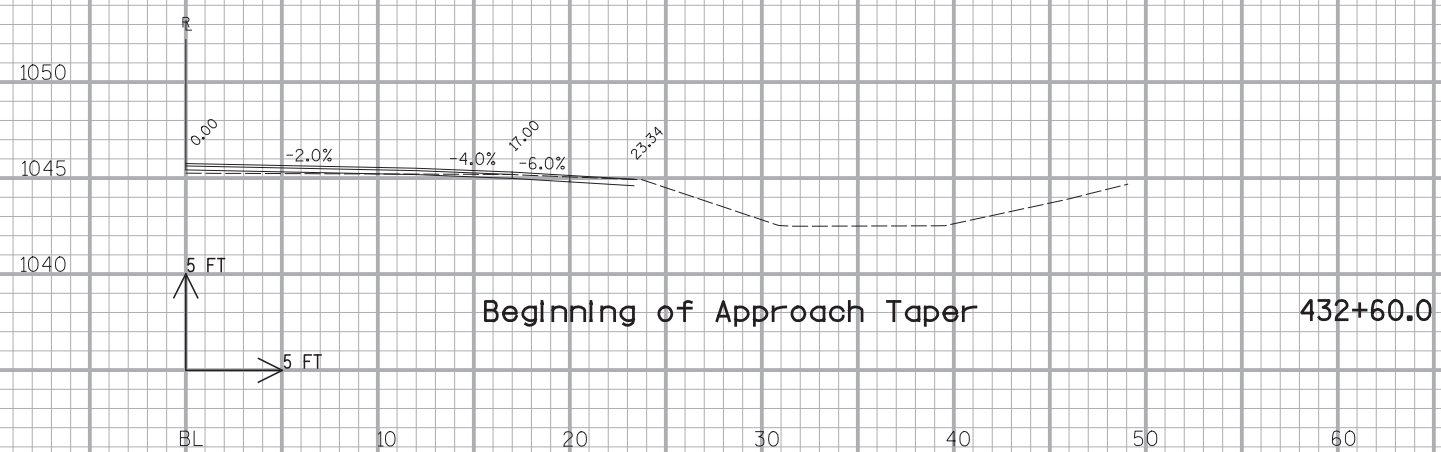
9

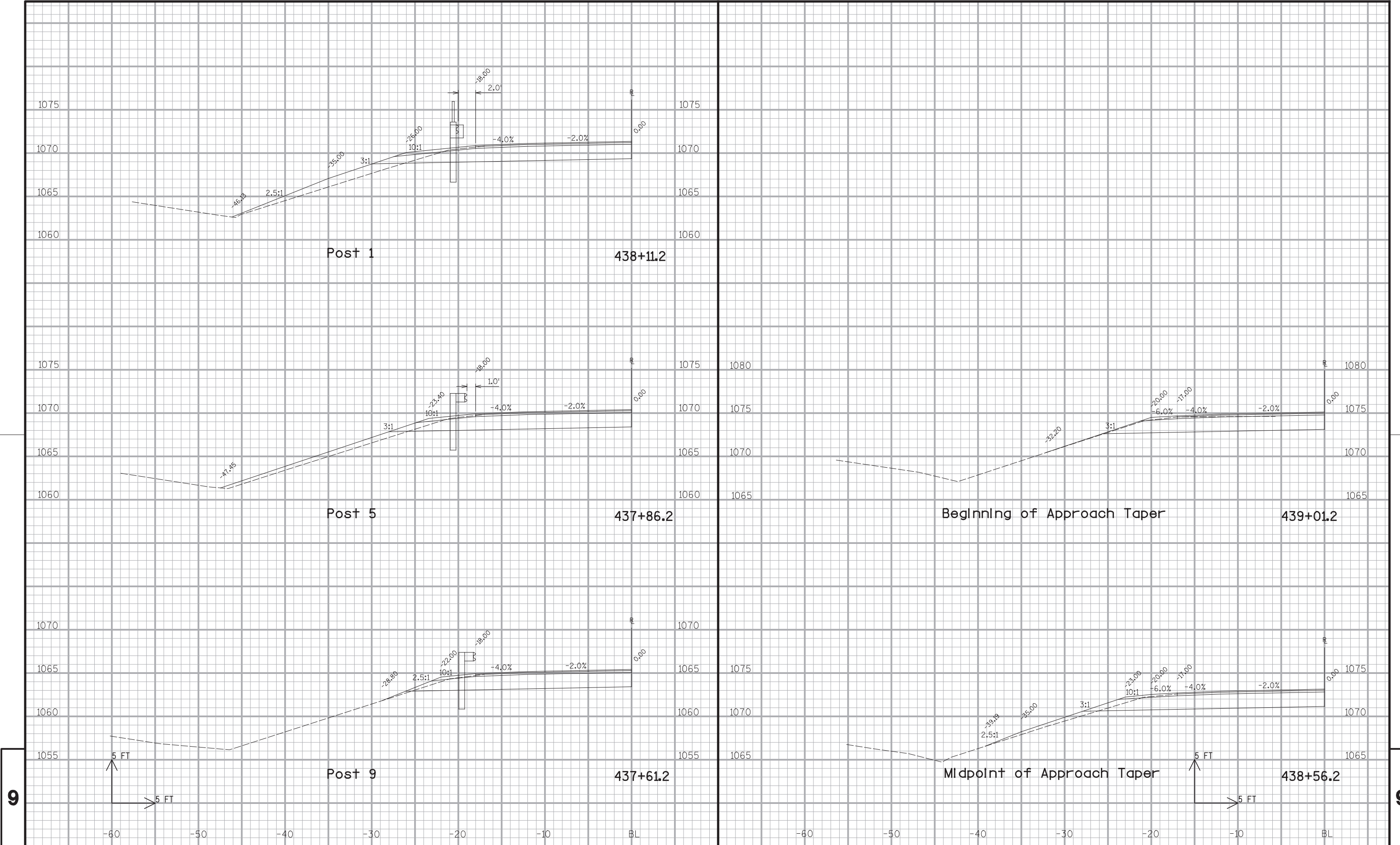
9

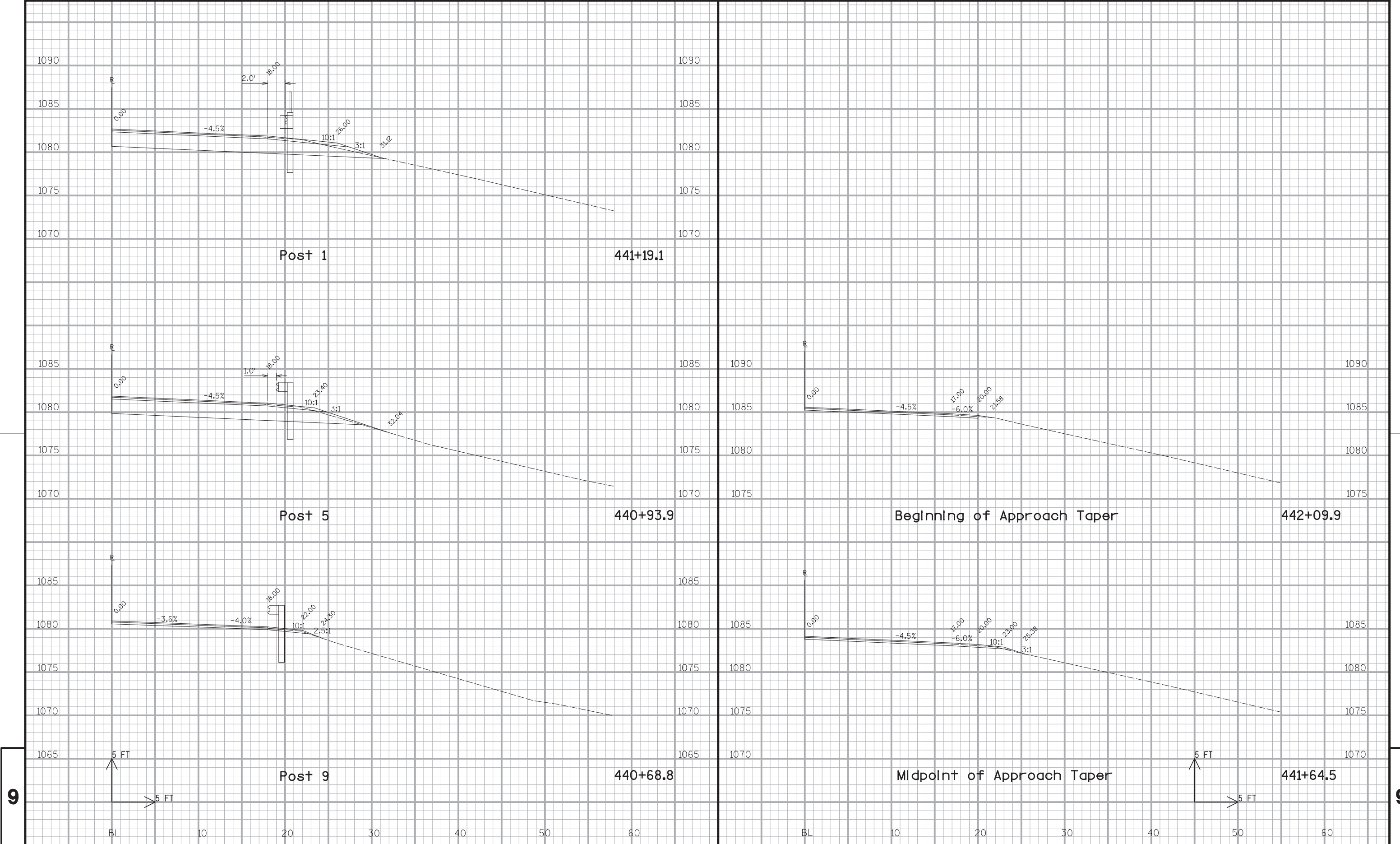












PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 441+19.1

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

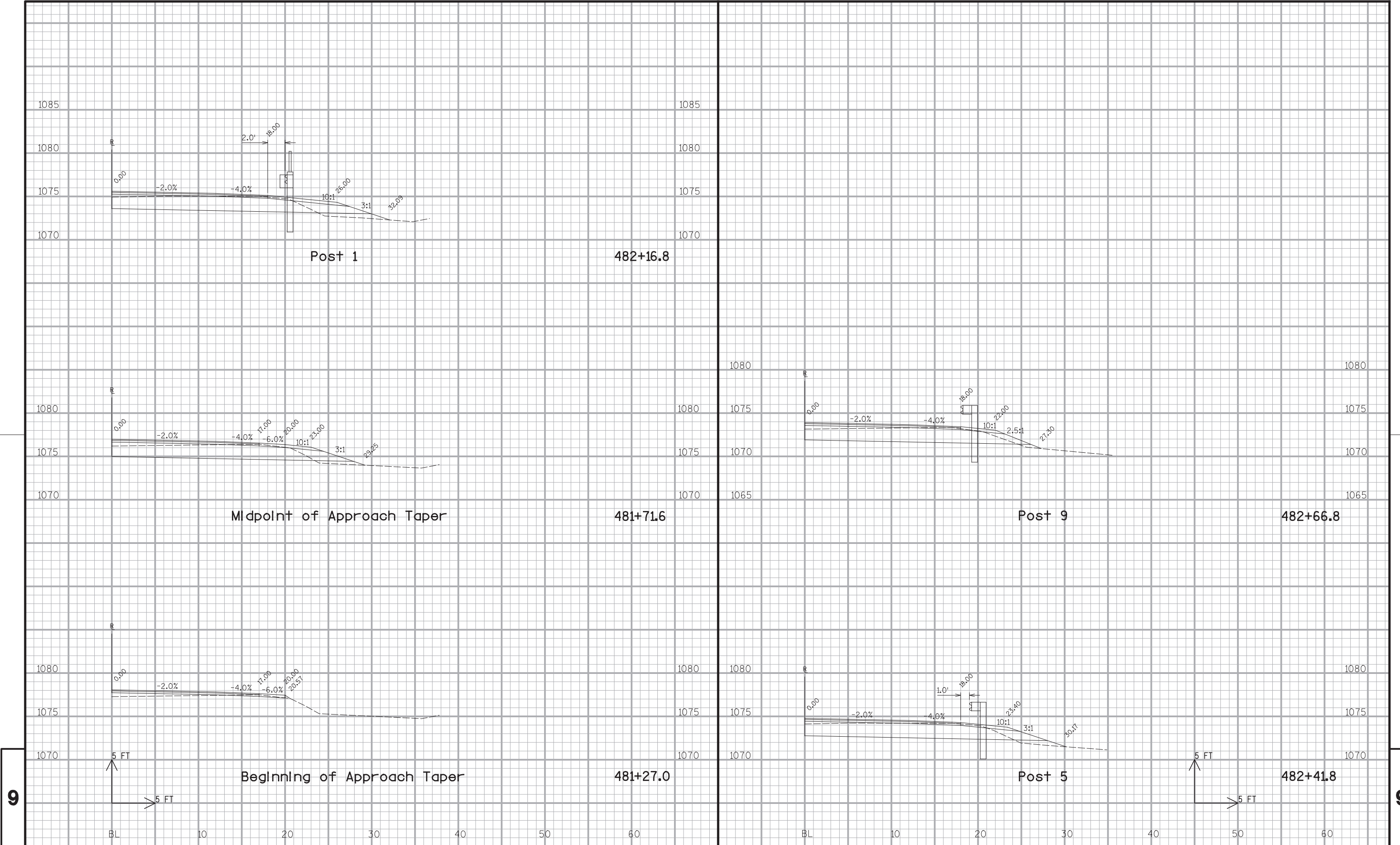
PLOT BY : \$\$...plotuser...\$\$

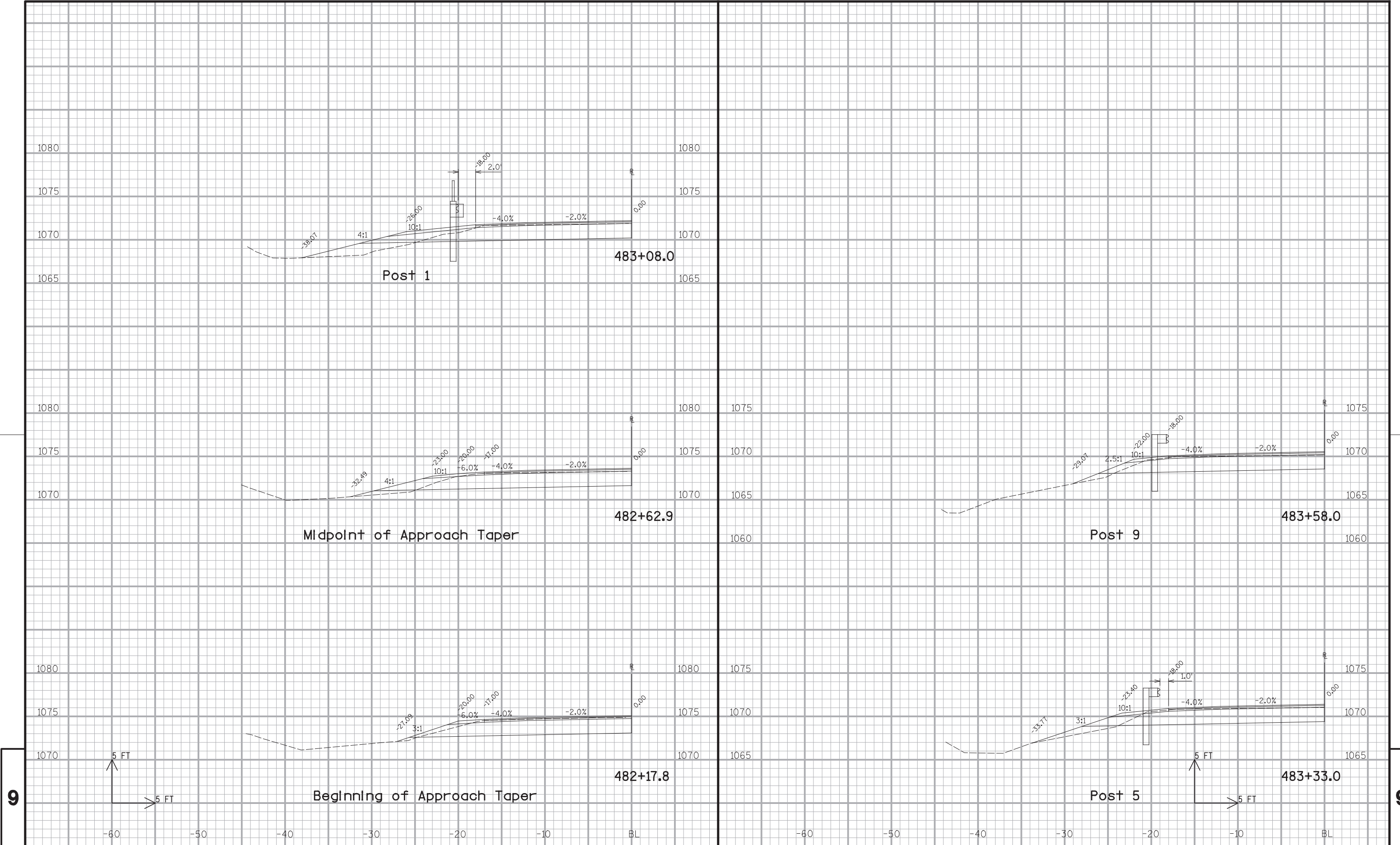
PLOT NAME :

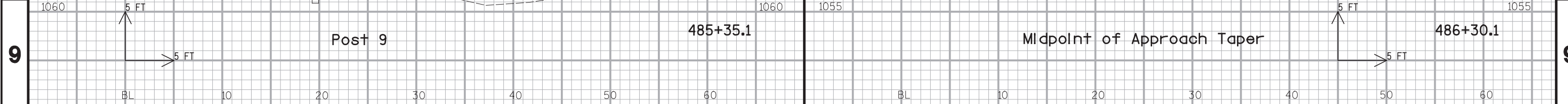
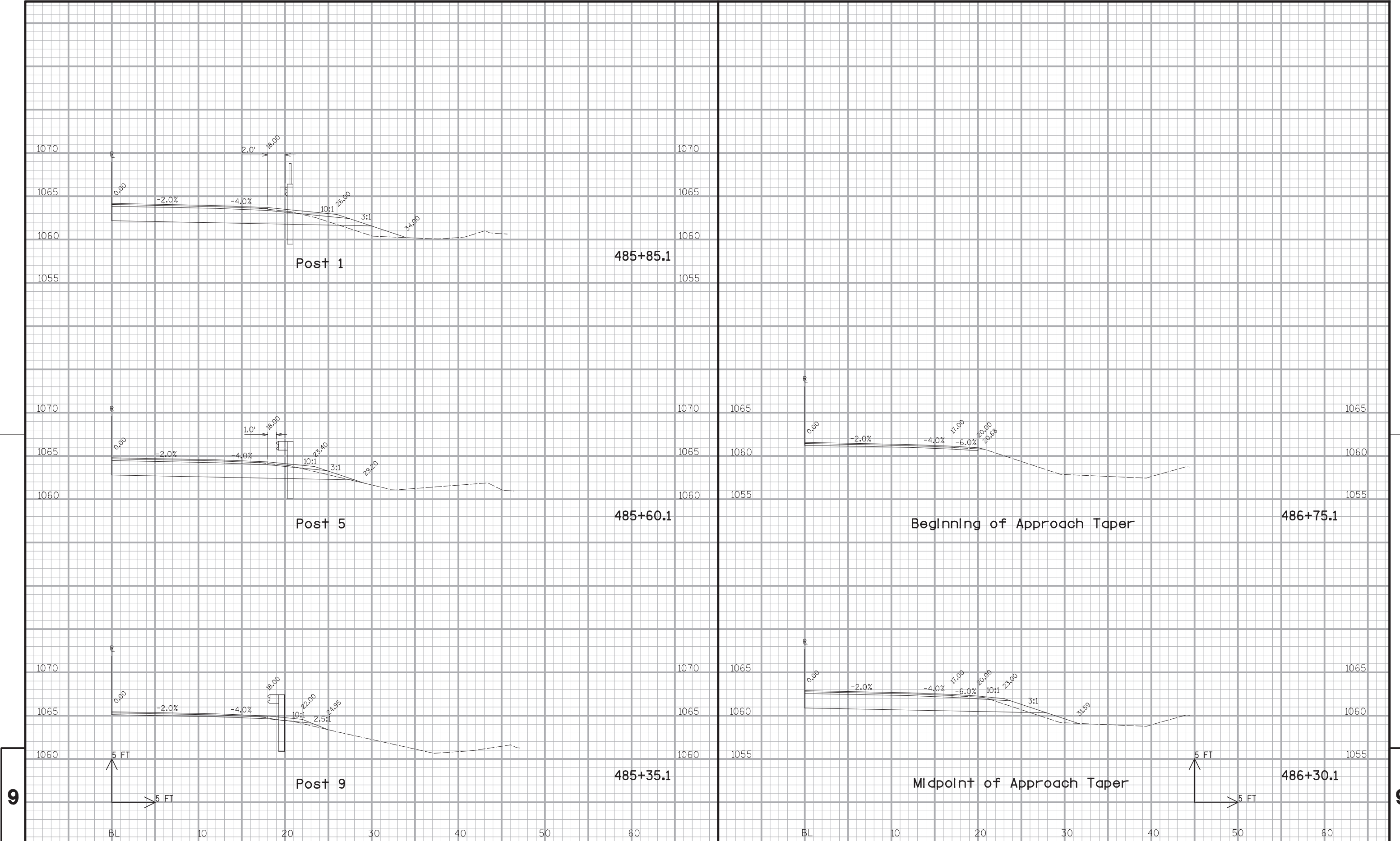
PLOT SCALE : \$\$.....plotscale.....\$\$

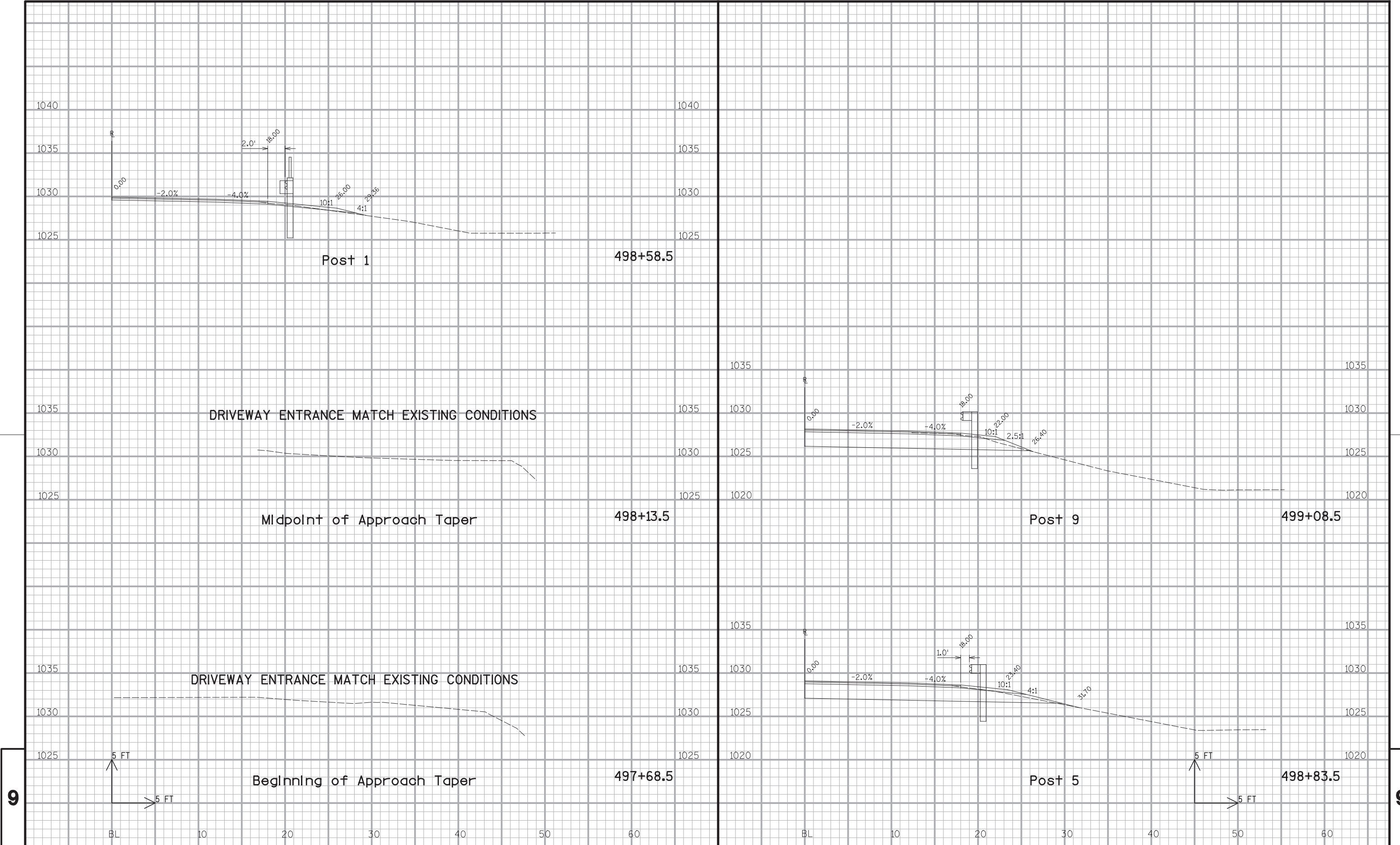
WISDOT/CAL 282

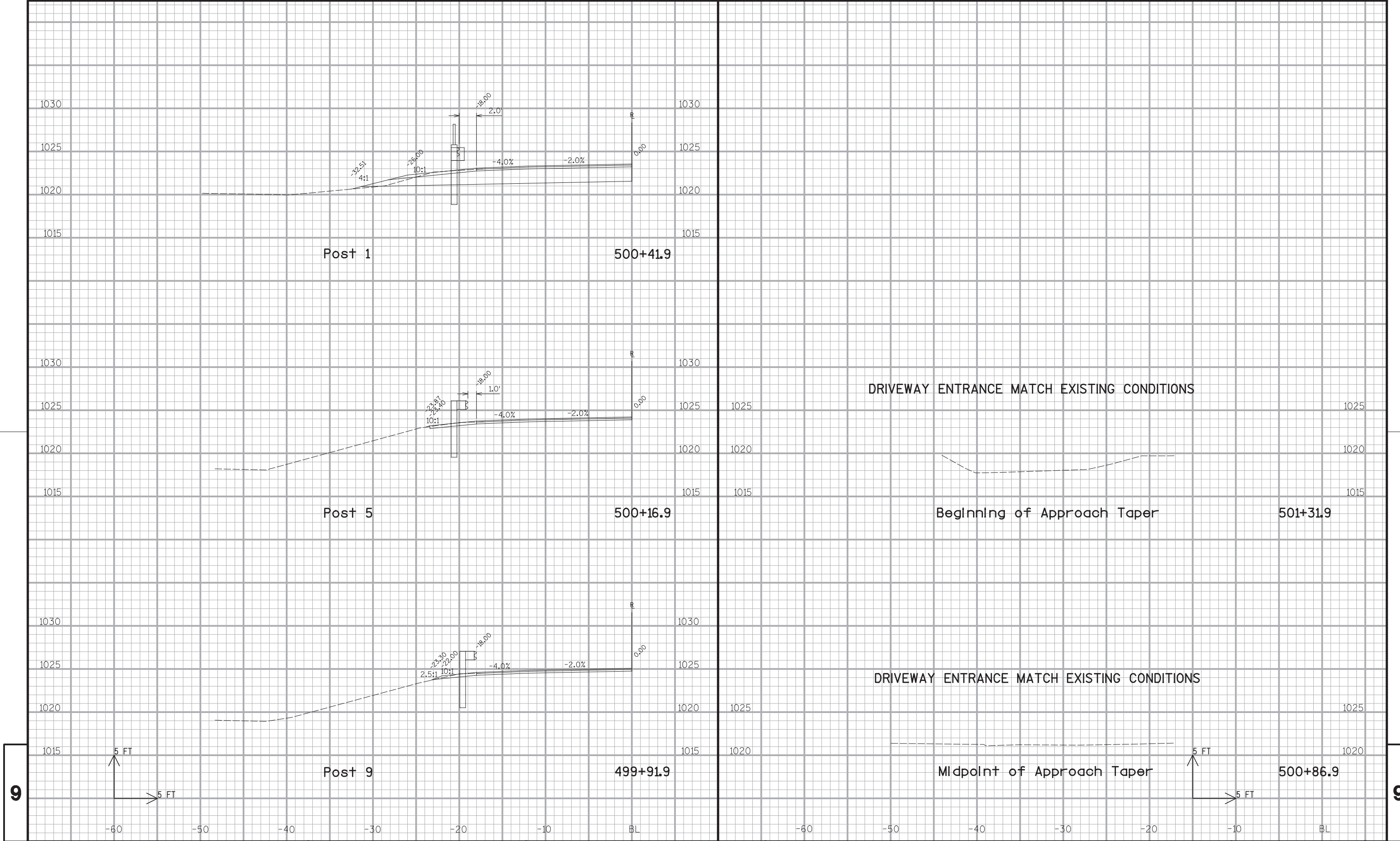
ET 21

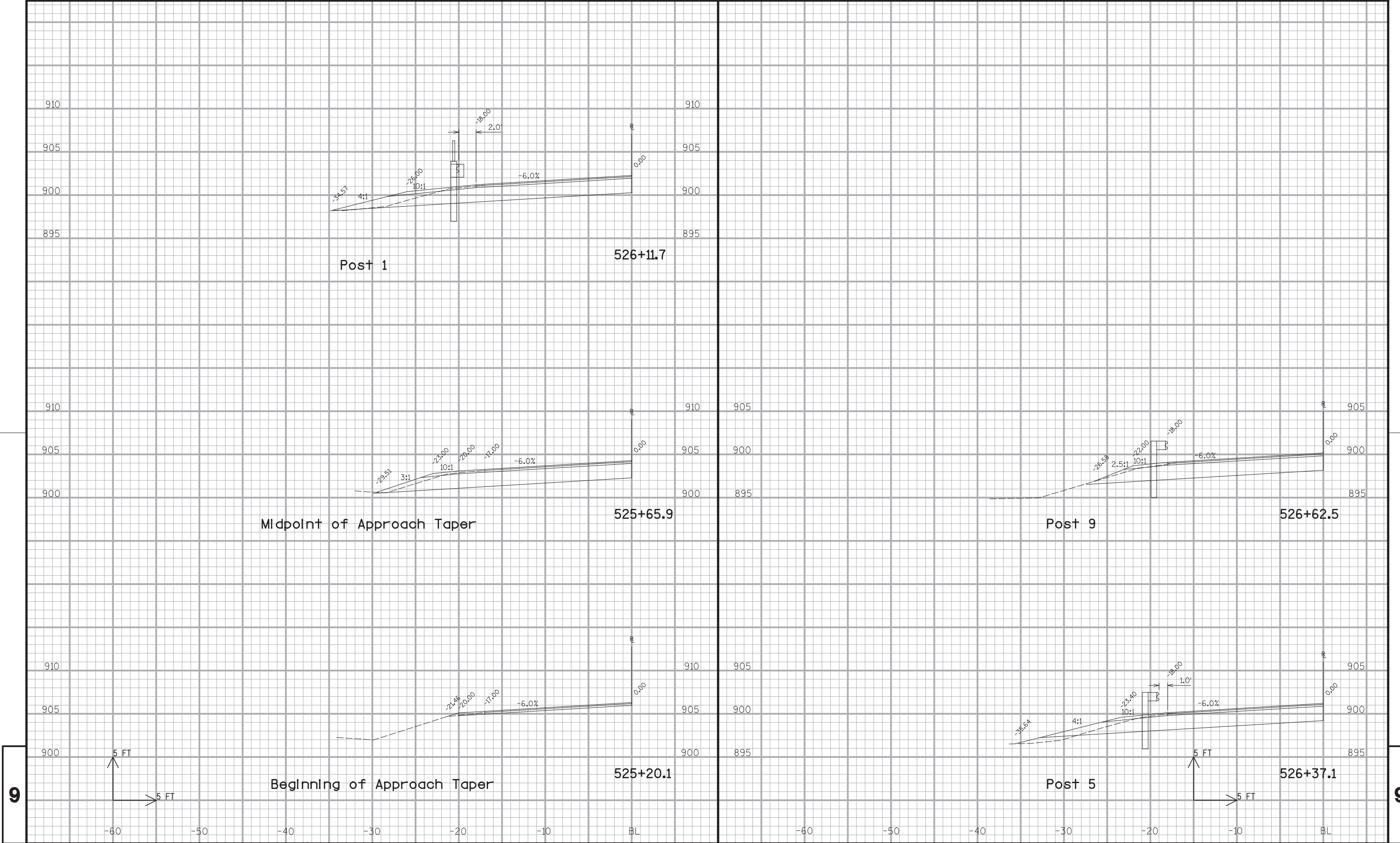


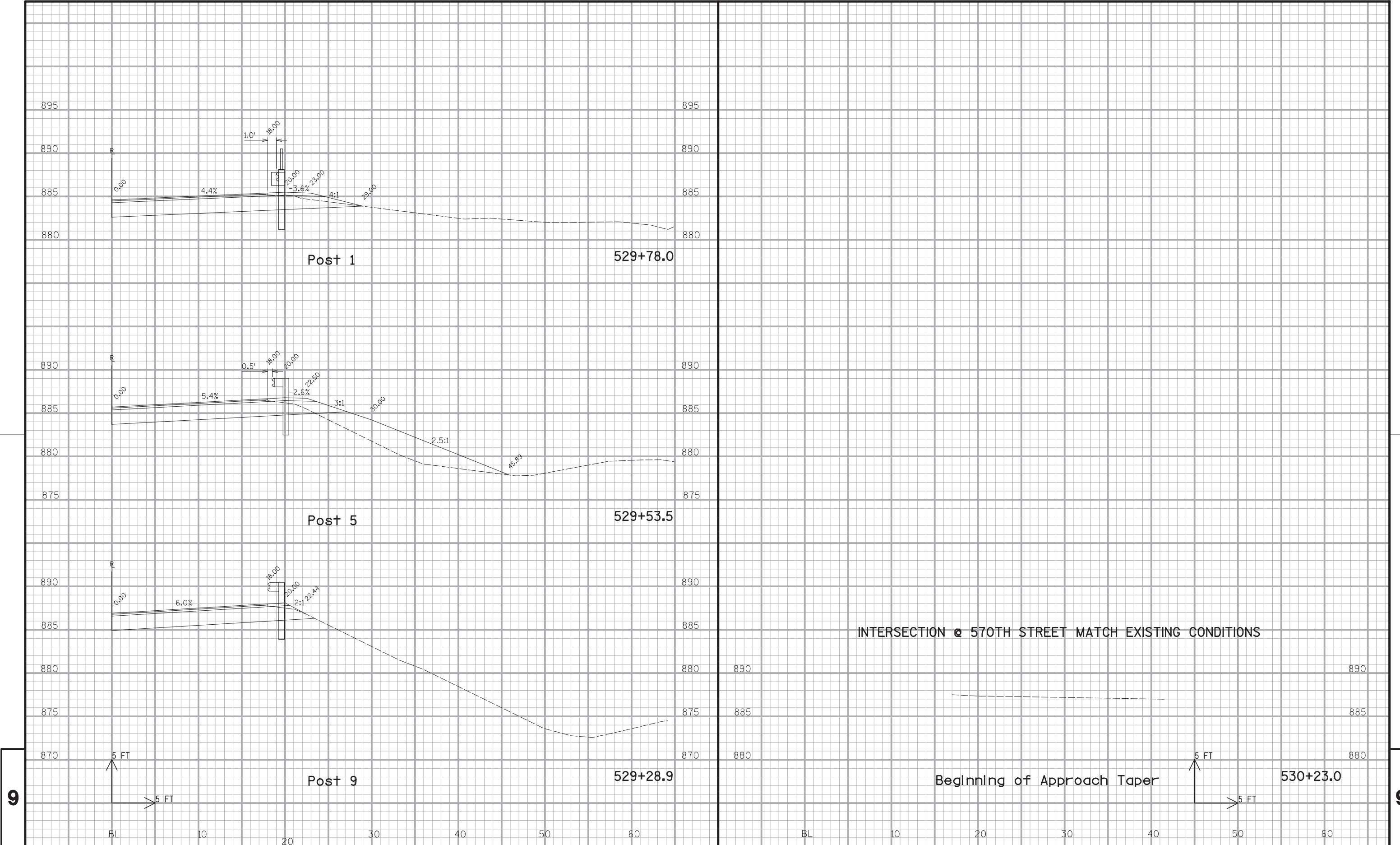


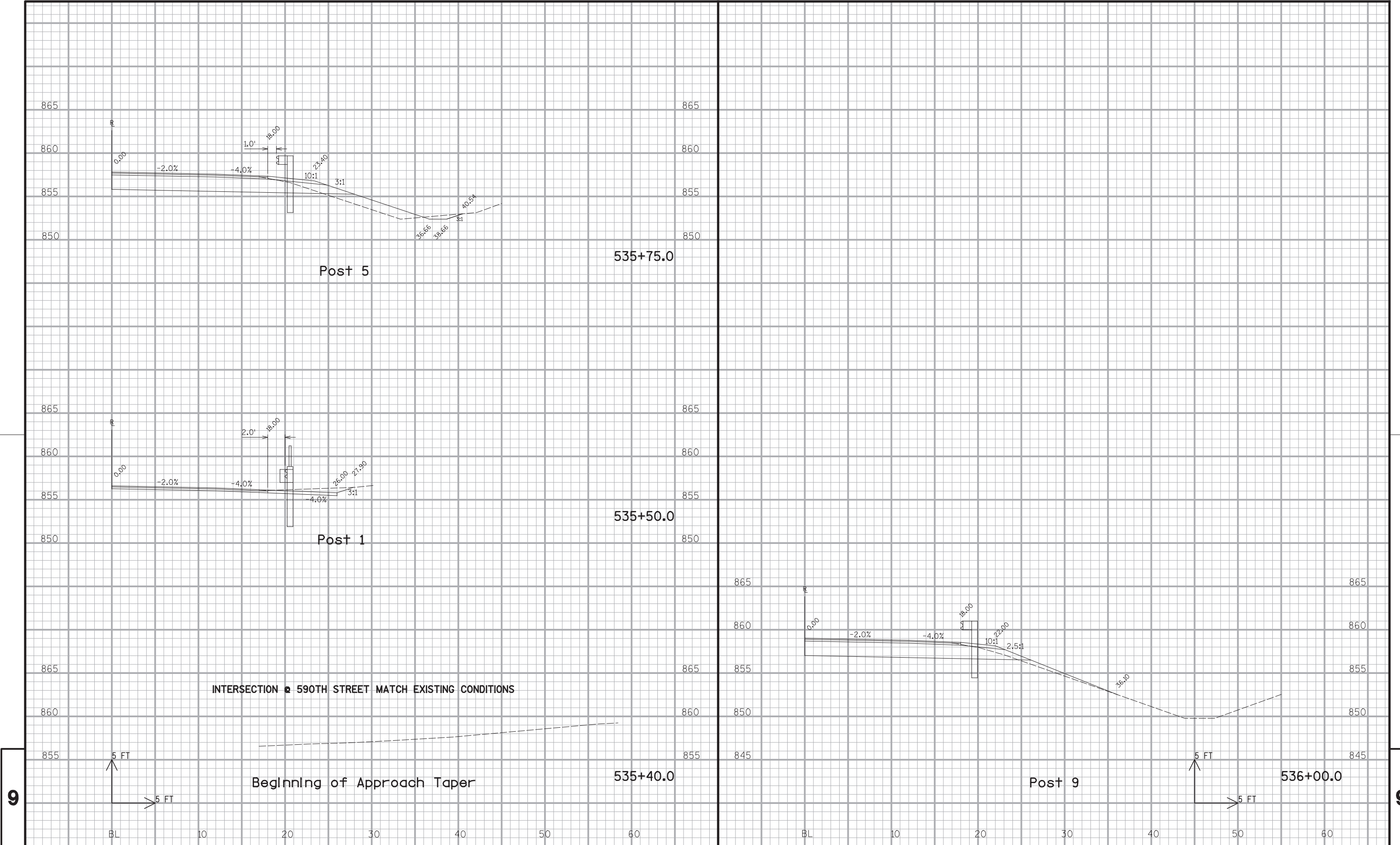


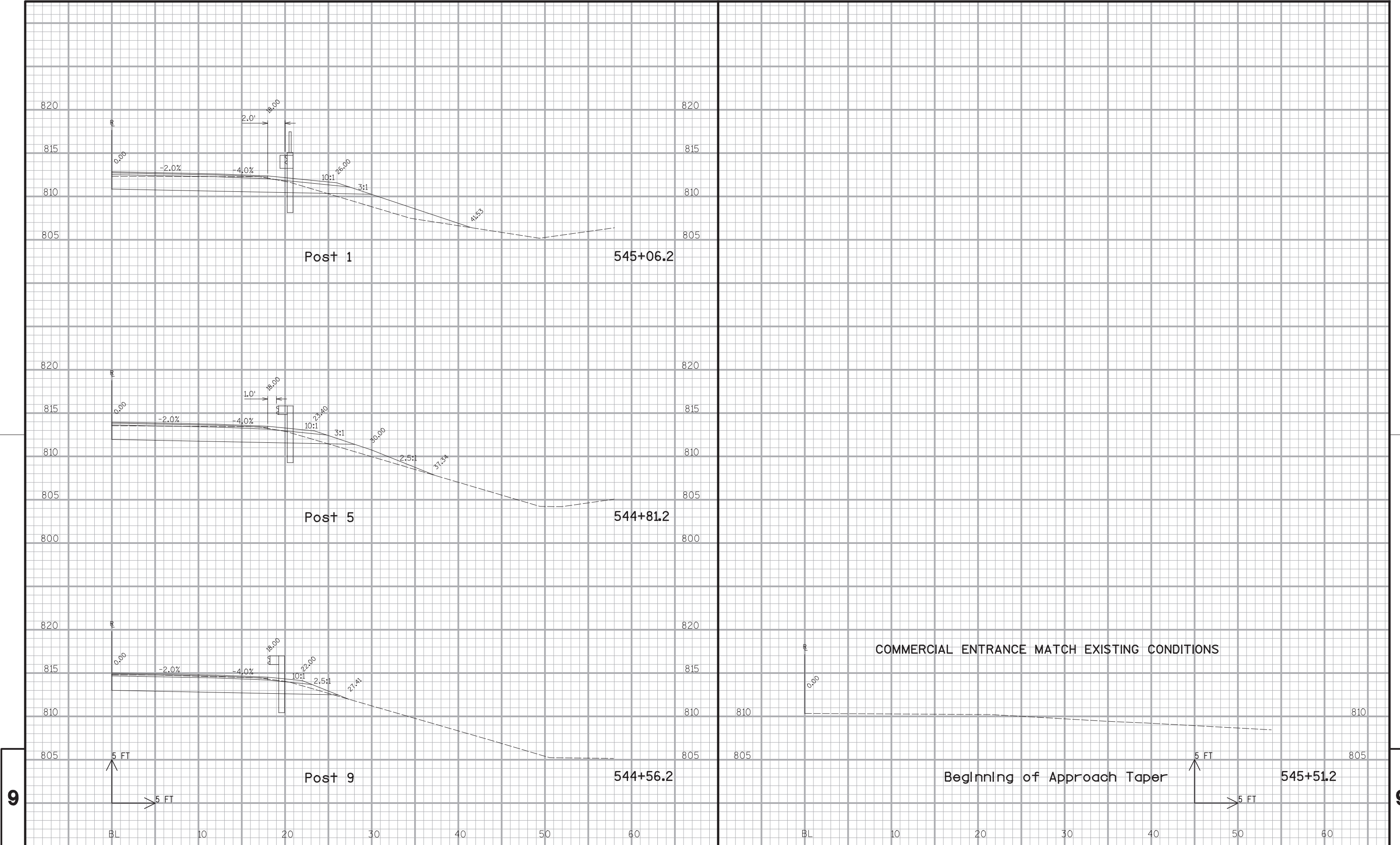


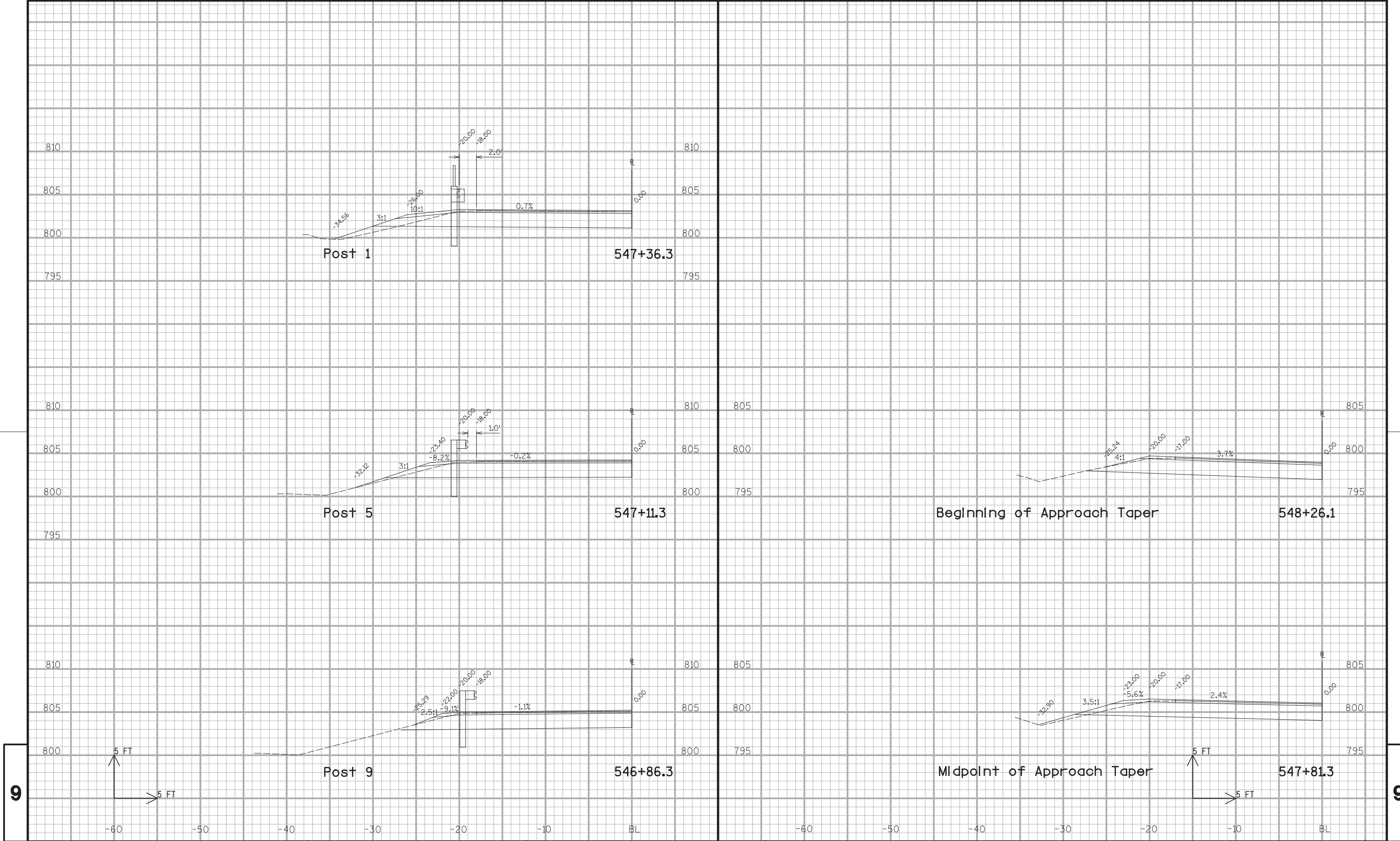


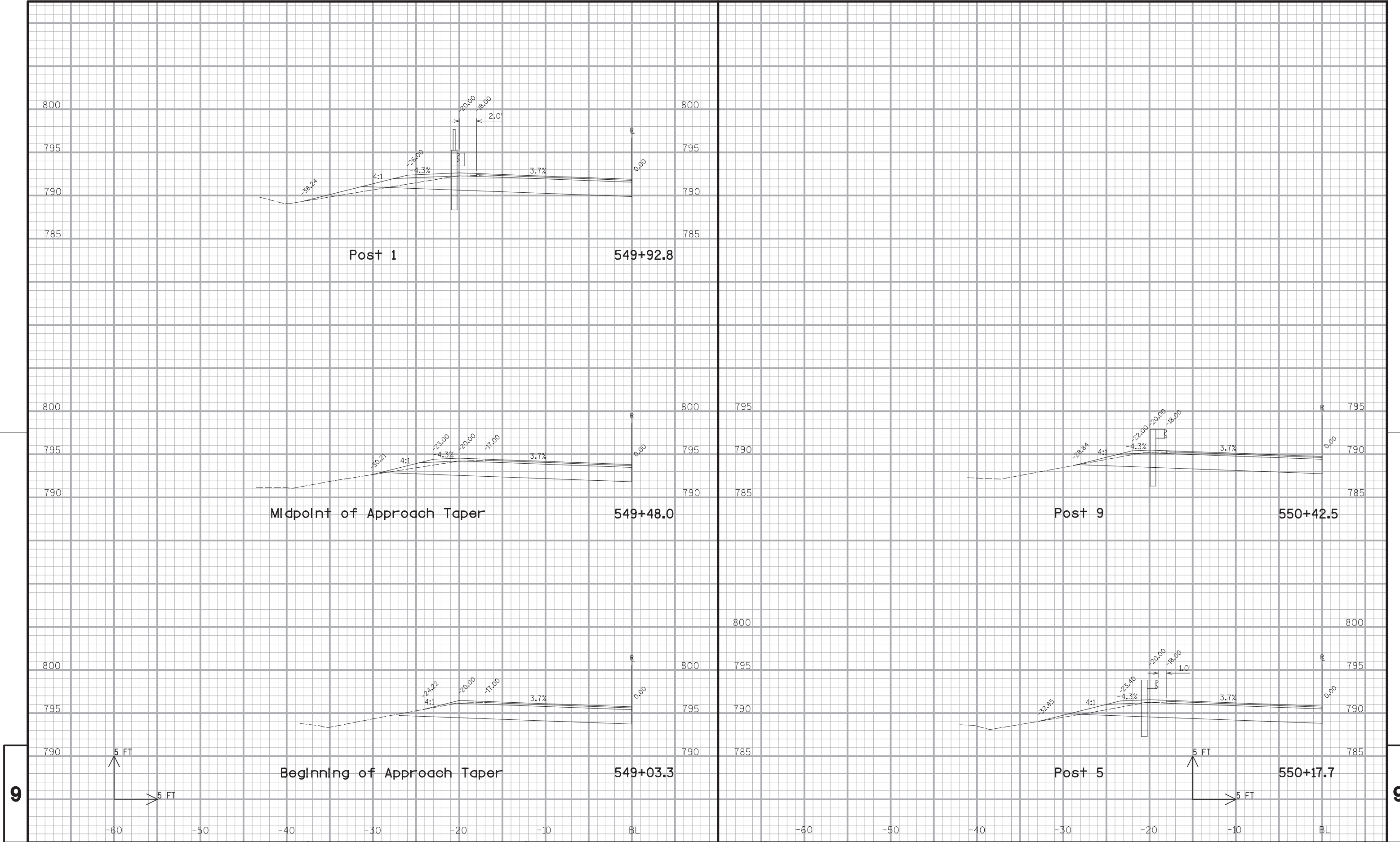












PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 549+92.8

SHEET

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

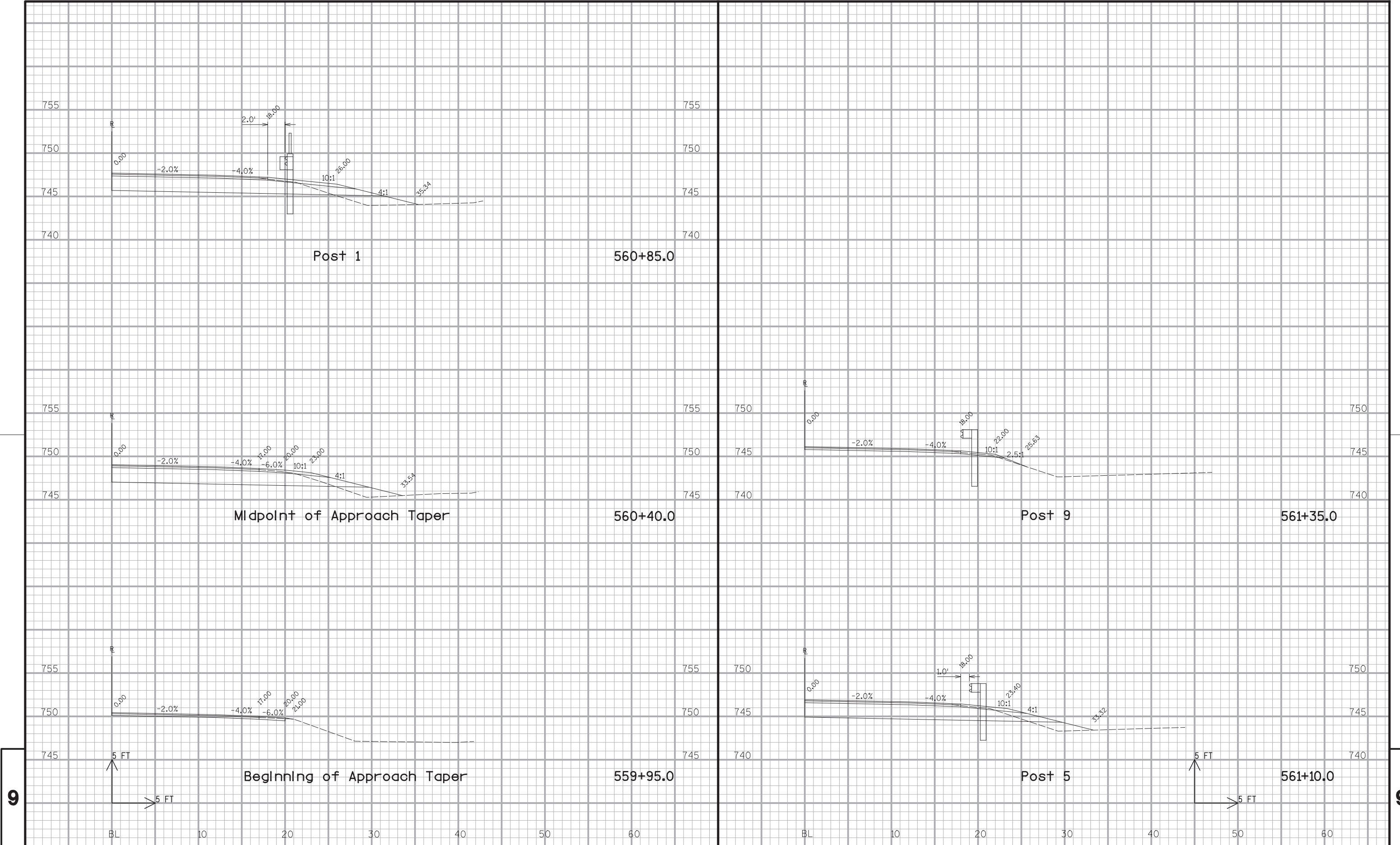
PLOT BY : \$\$...plotuser...\$\$

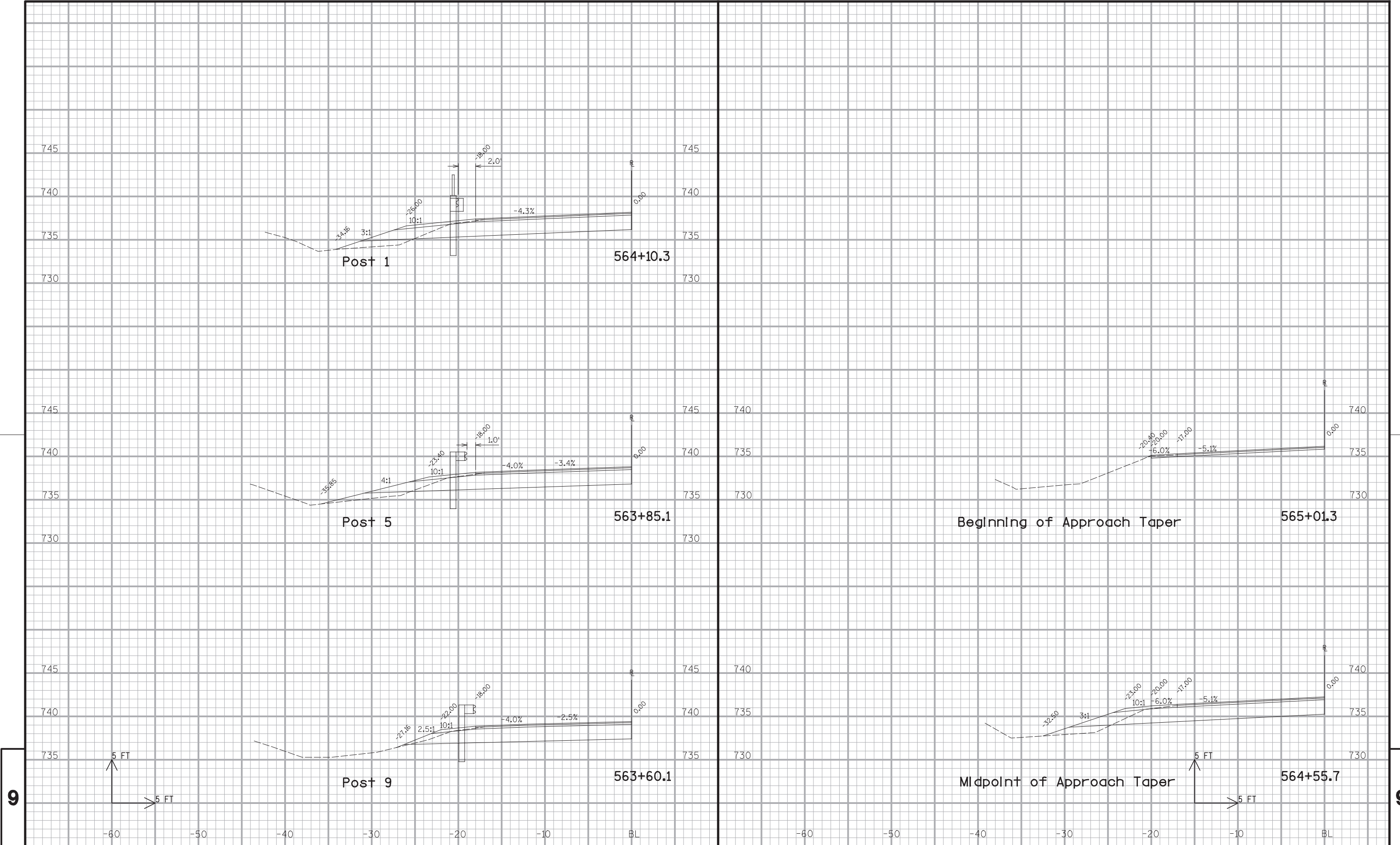
PLOT NAME :

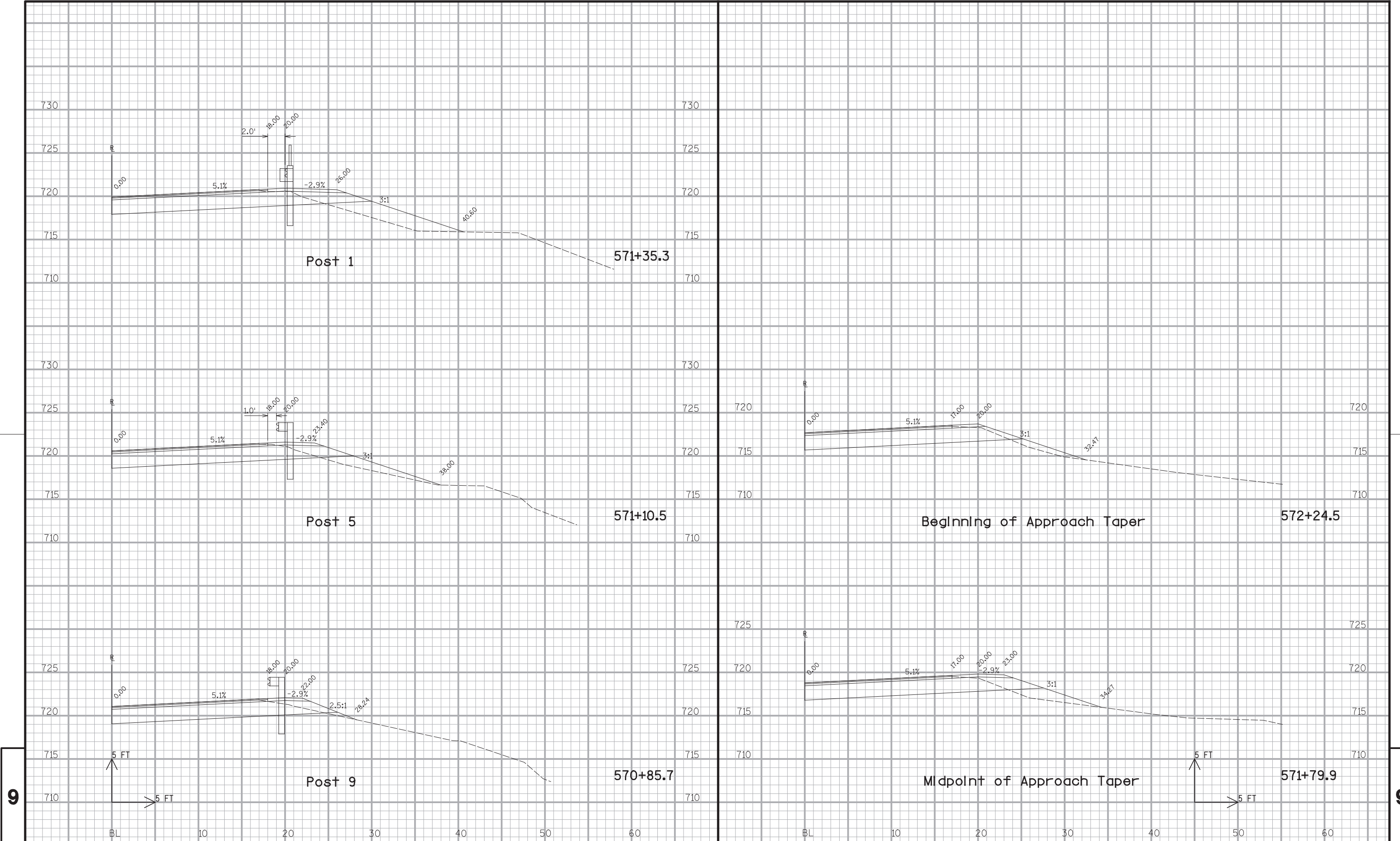
PLOT SCALE : \$\$.....plotscale.....\$\$

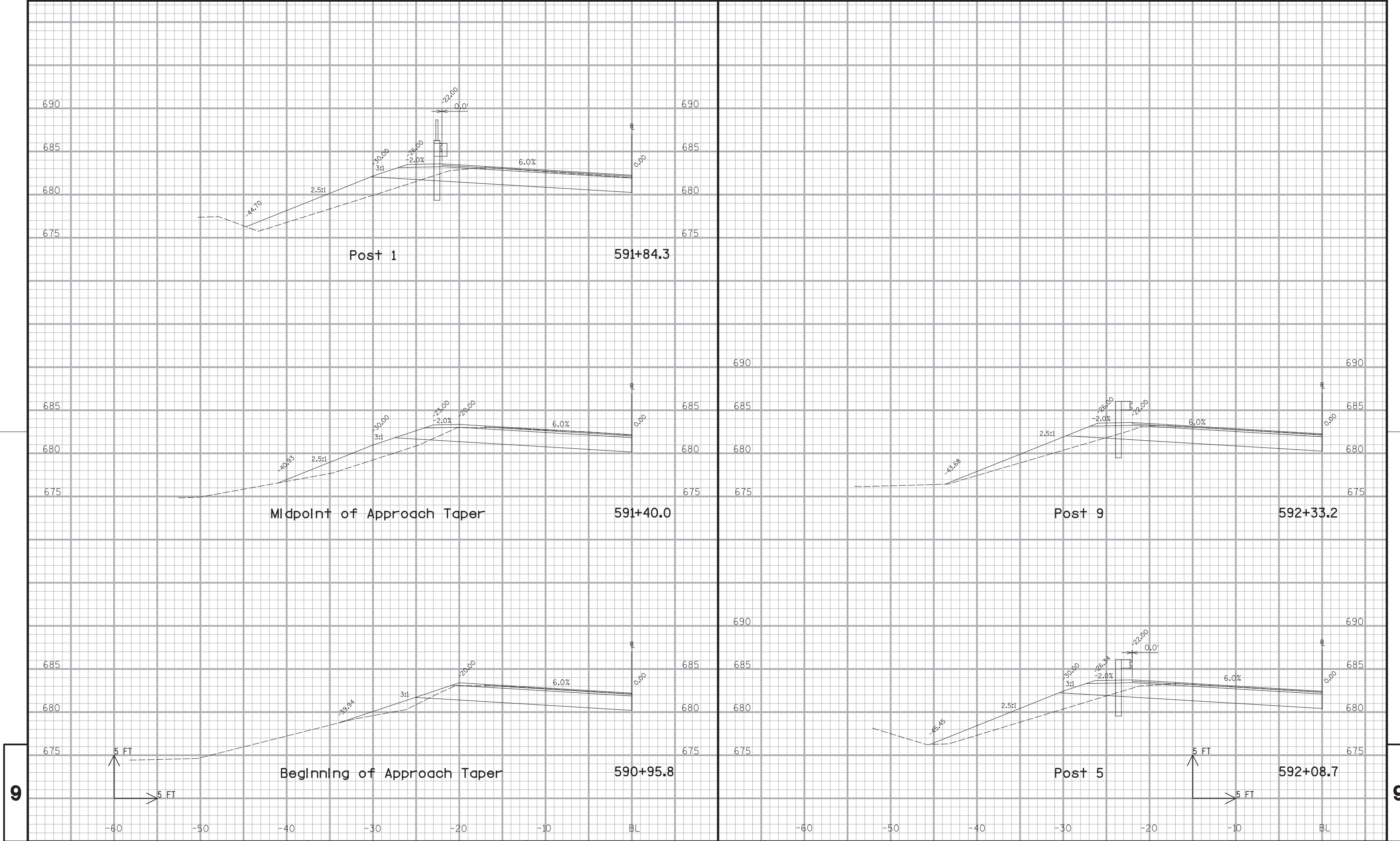
WISDOT/CAL 293

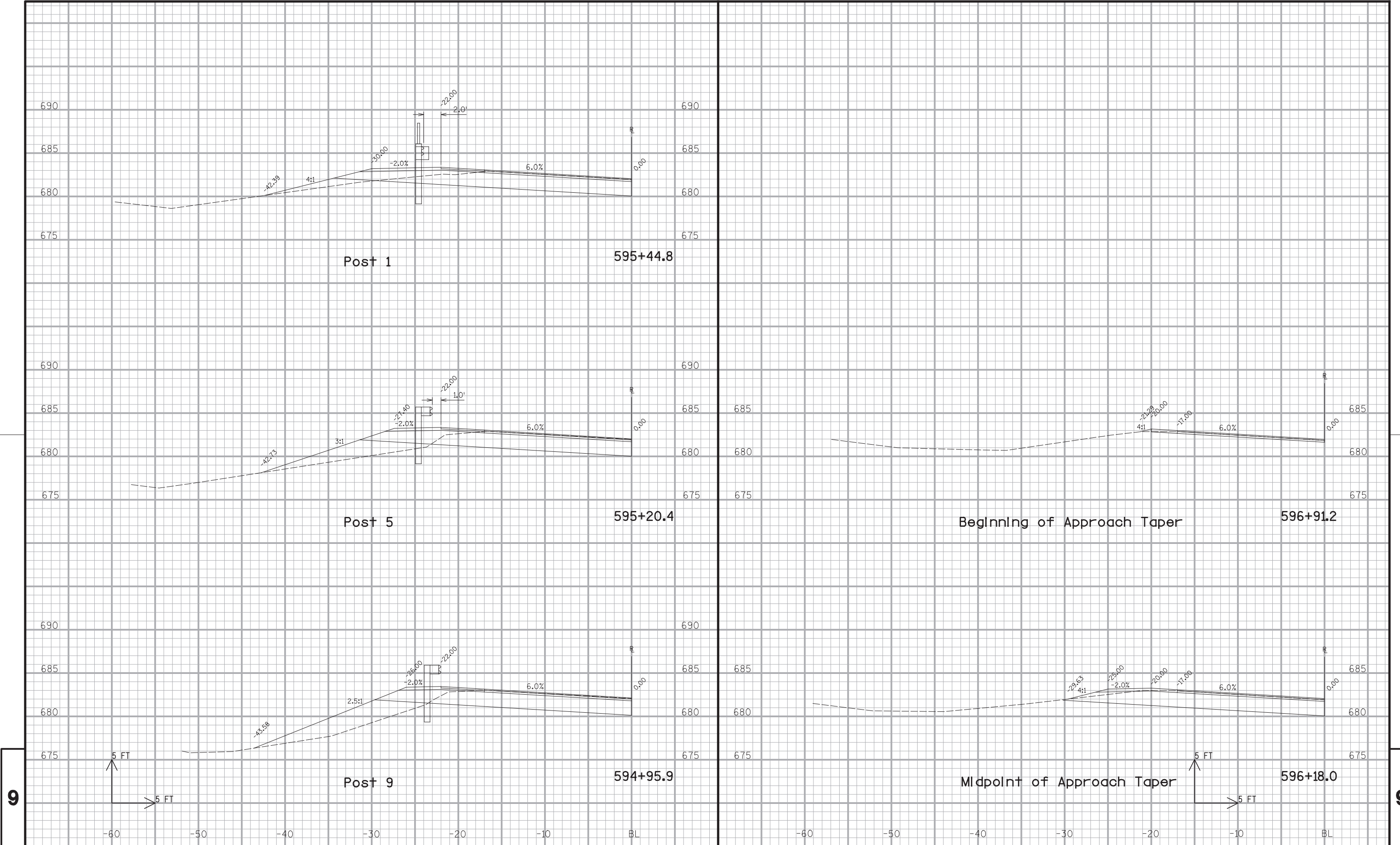
ET 21











PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 595+44.8

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

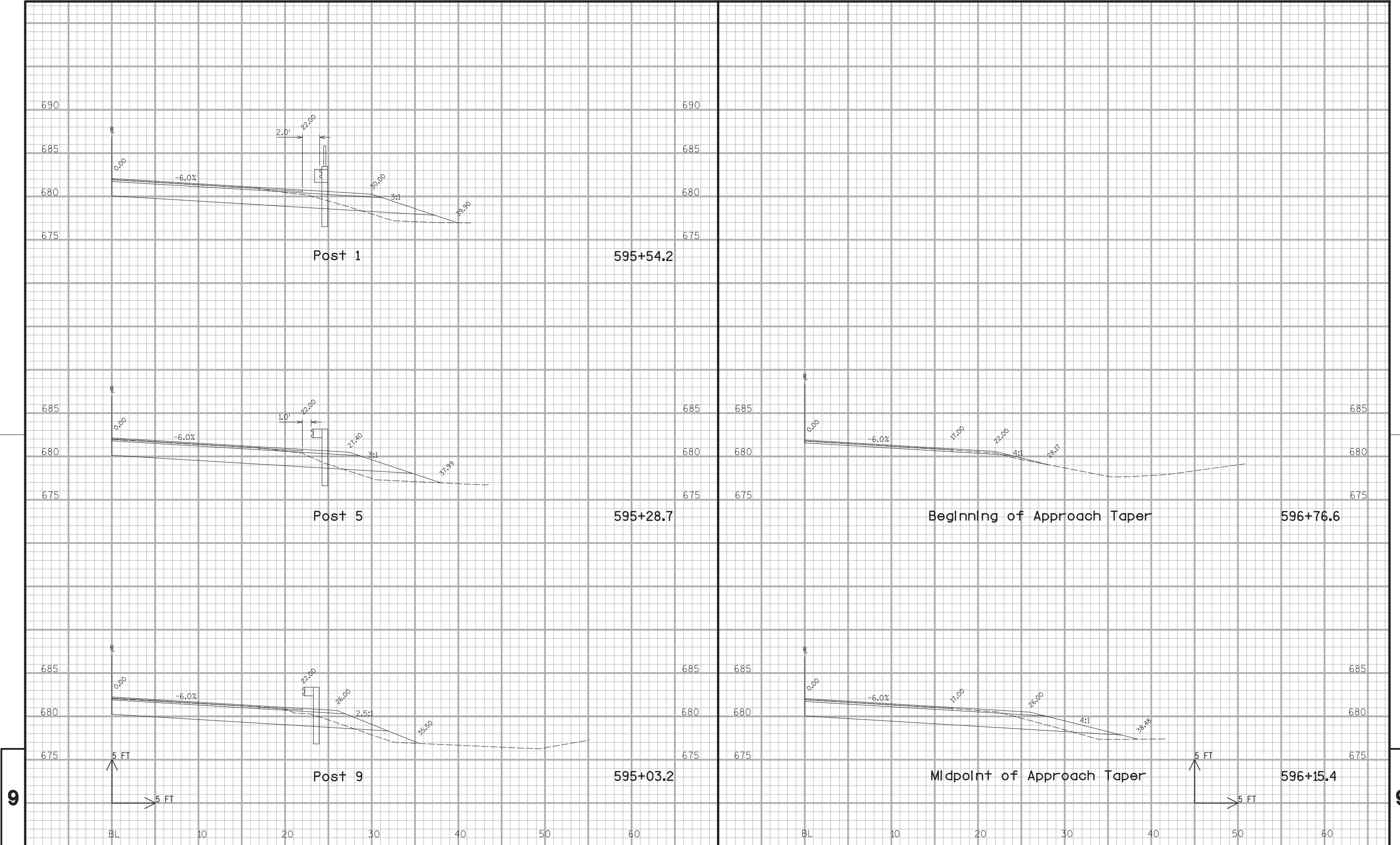
PLOT BY : \$\$...plotuser...\$\$

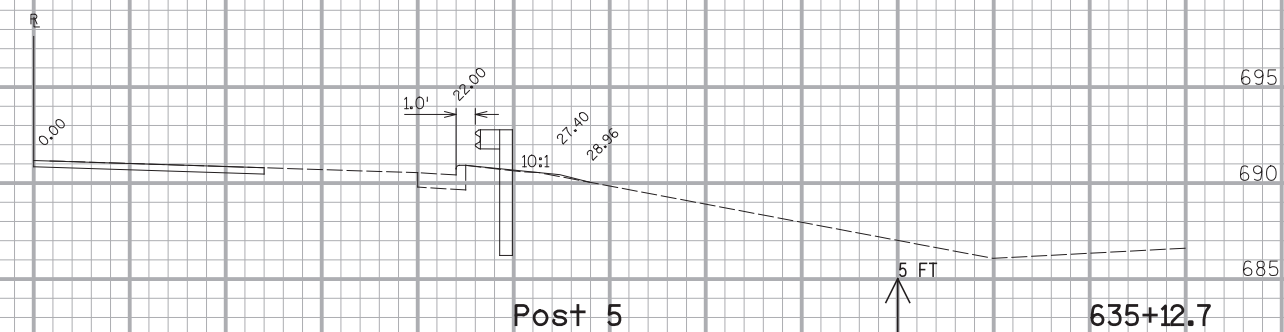
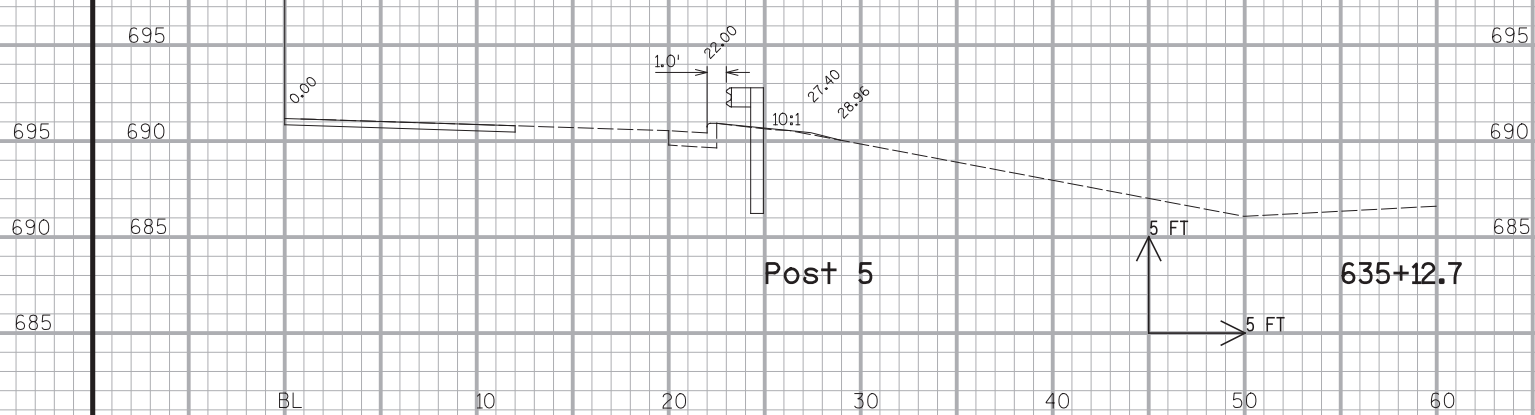
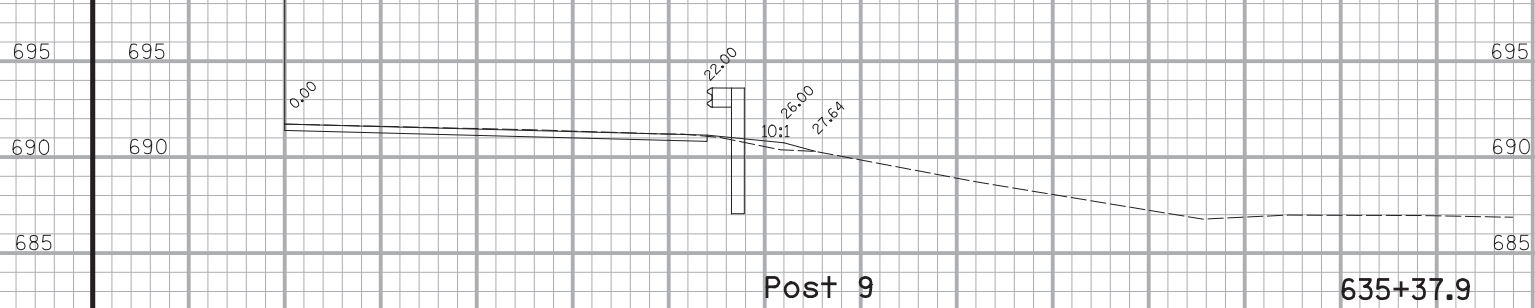
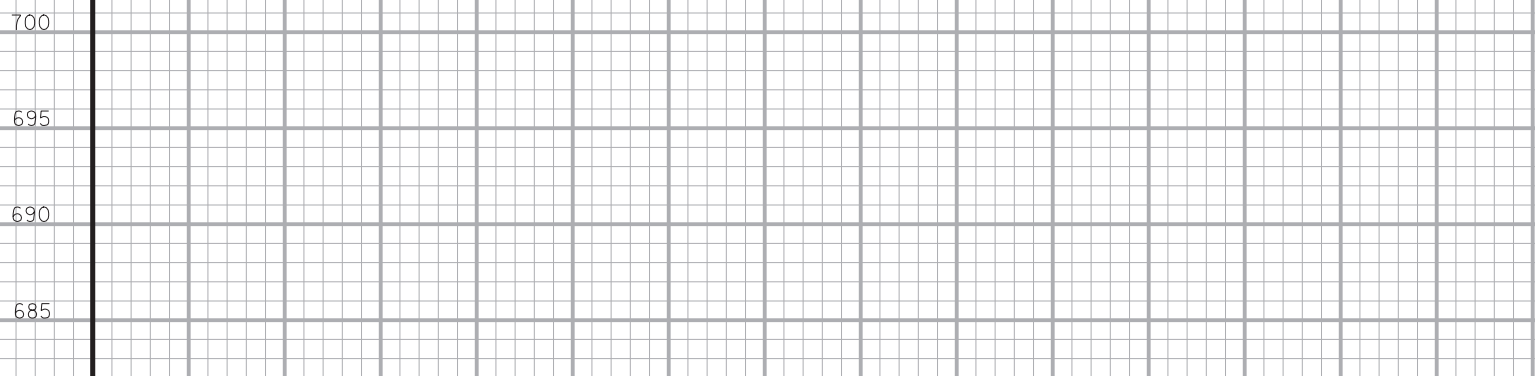
PLOT NAME :

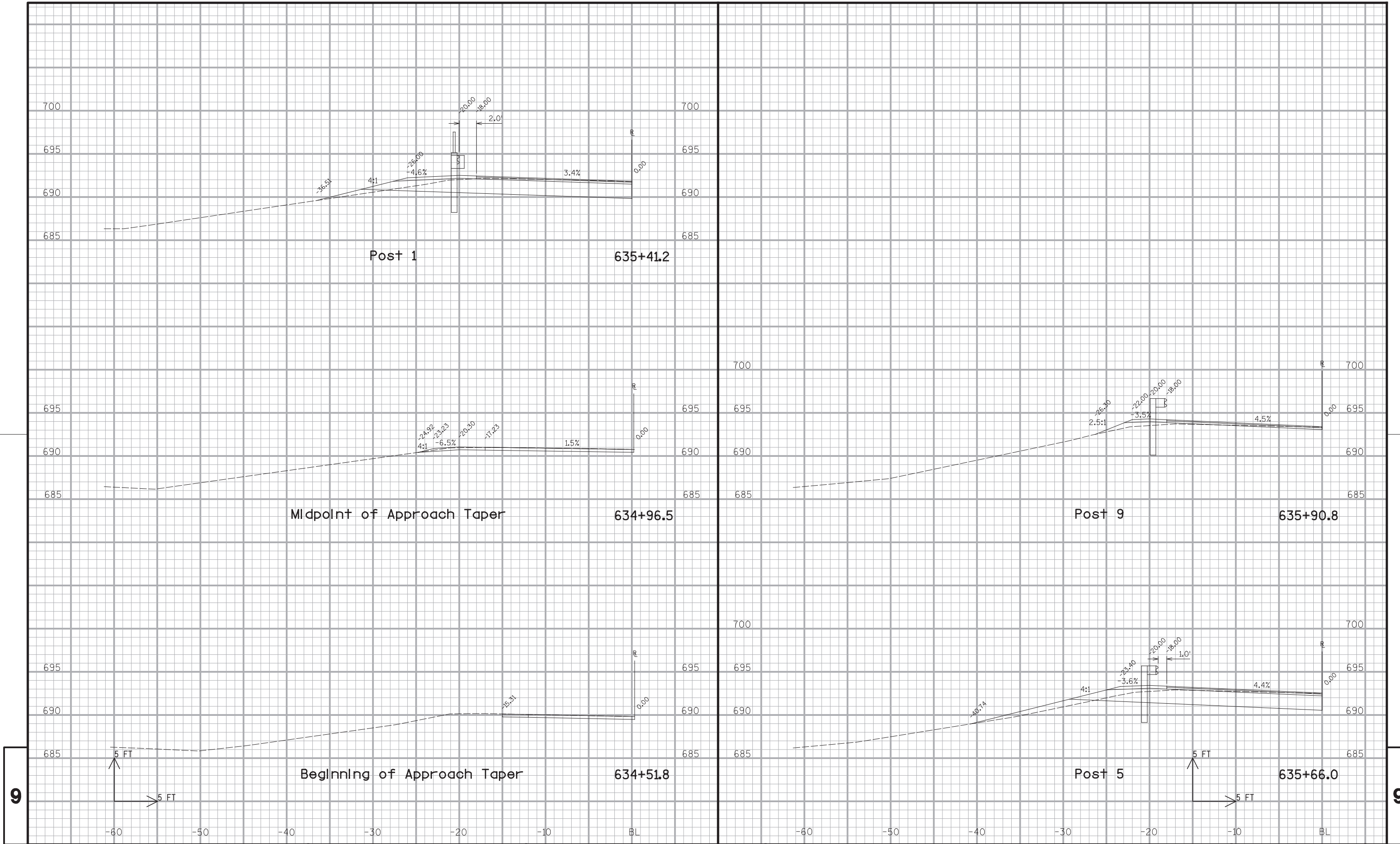
PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAL 299

ET 21







PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: BEAMGUARD END TERMINALS, STA 635+41.2

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

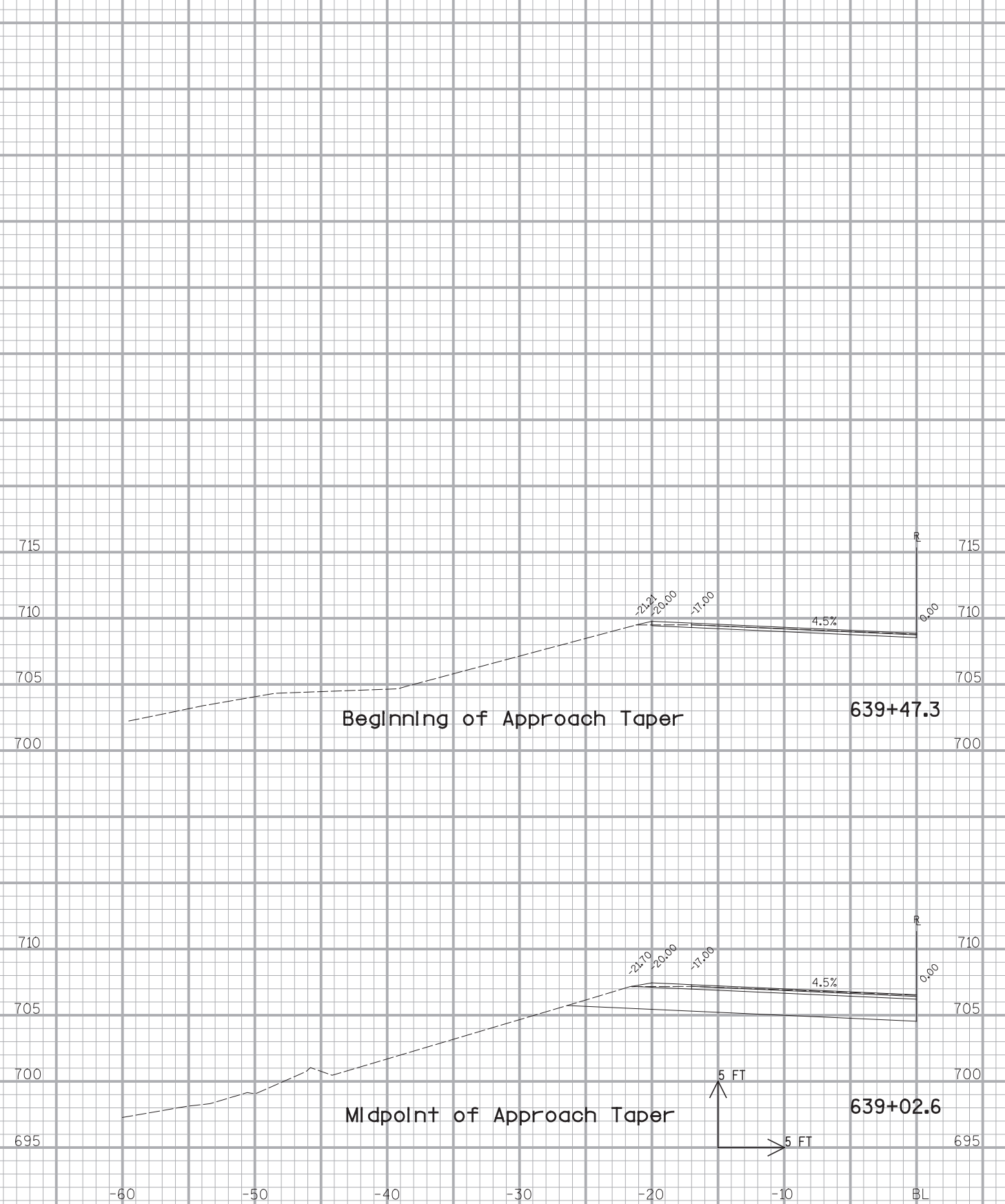
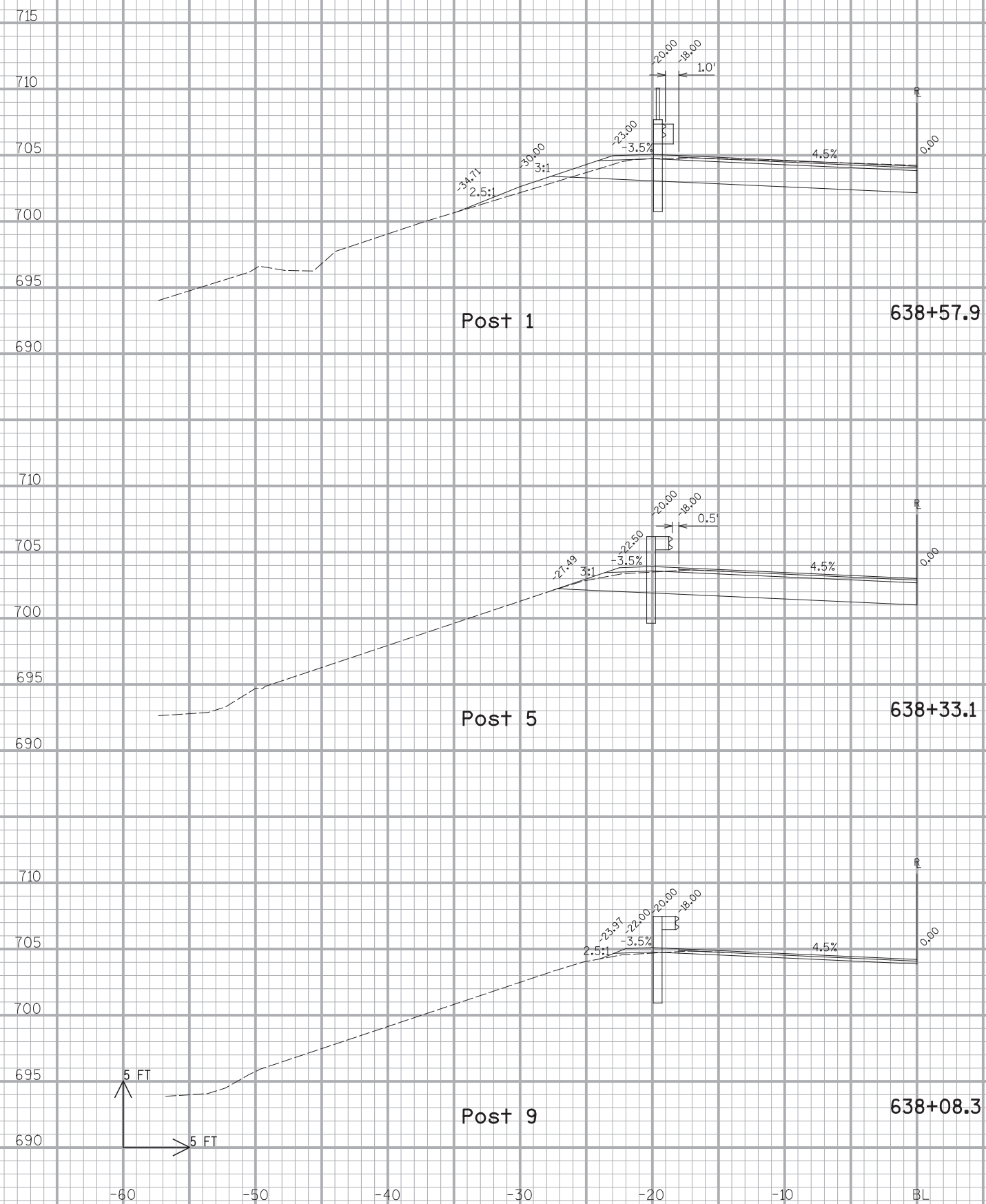
PLOT BY : \$\$...plotuser...\$\$

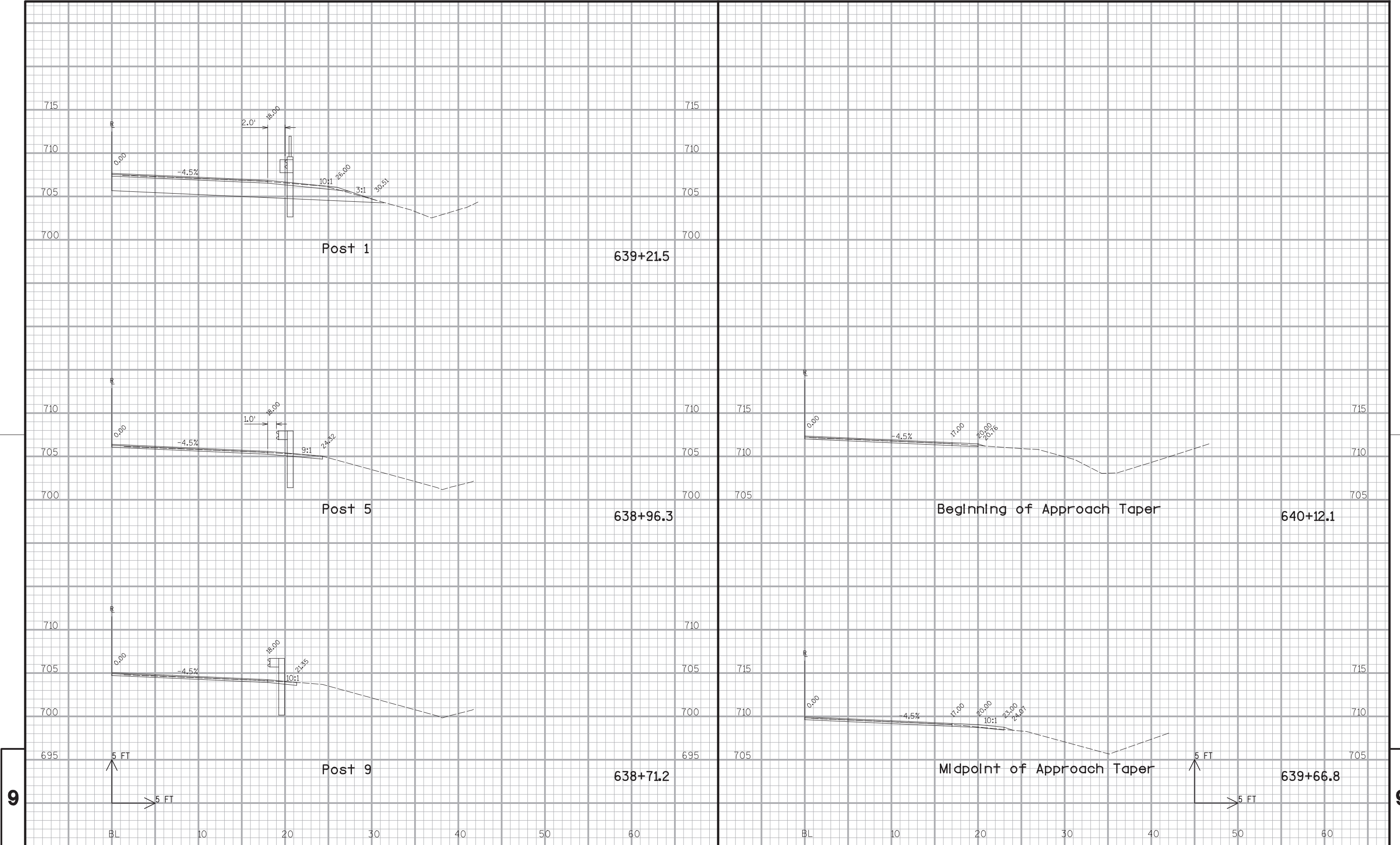
PLOT NAME :

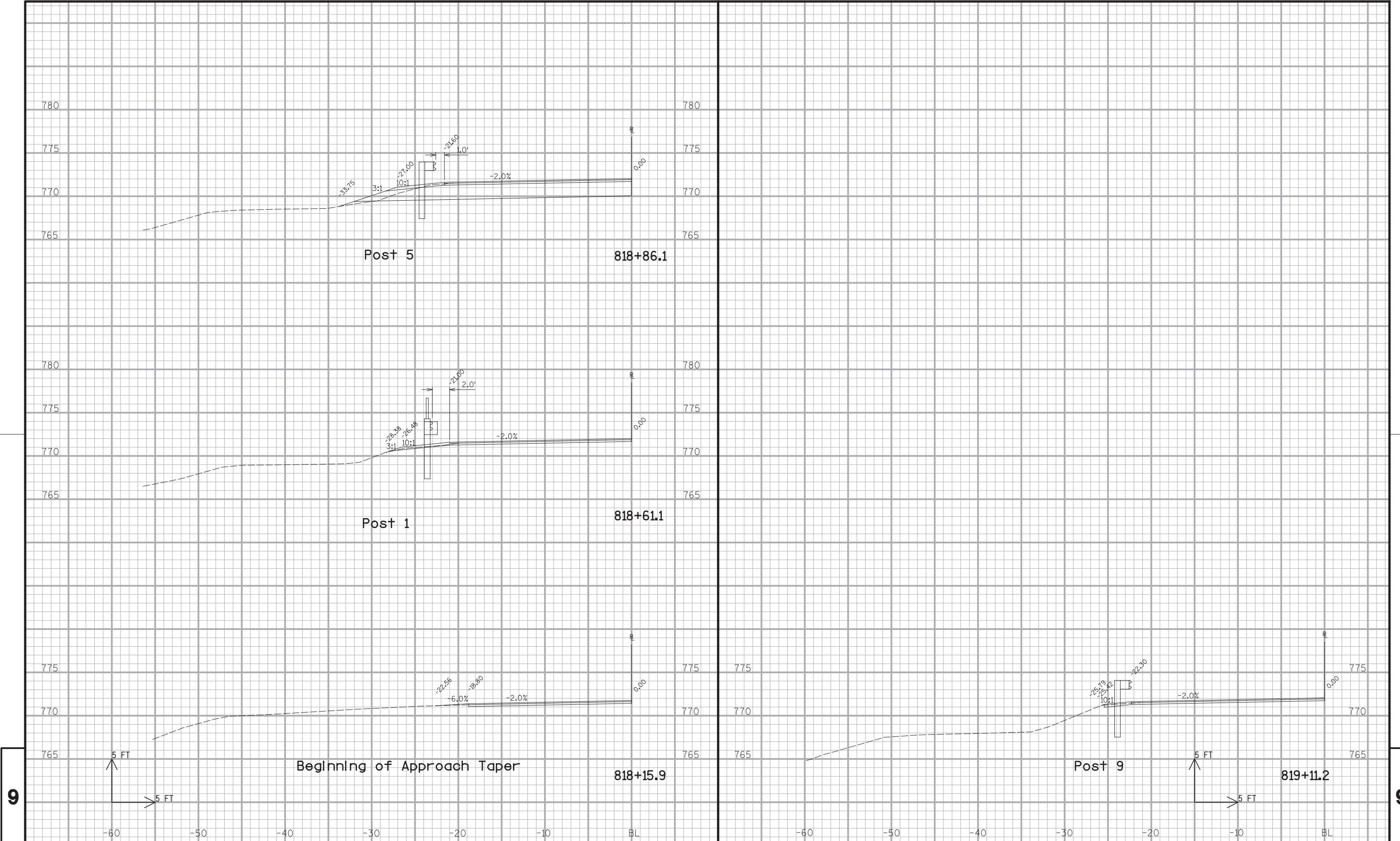
PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAL 302

ET 21



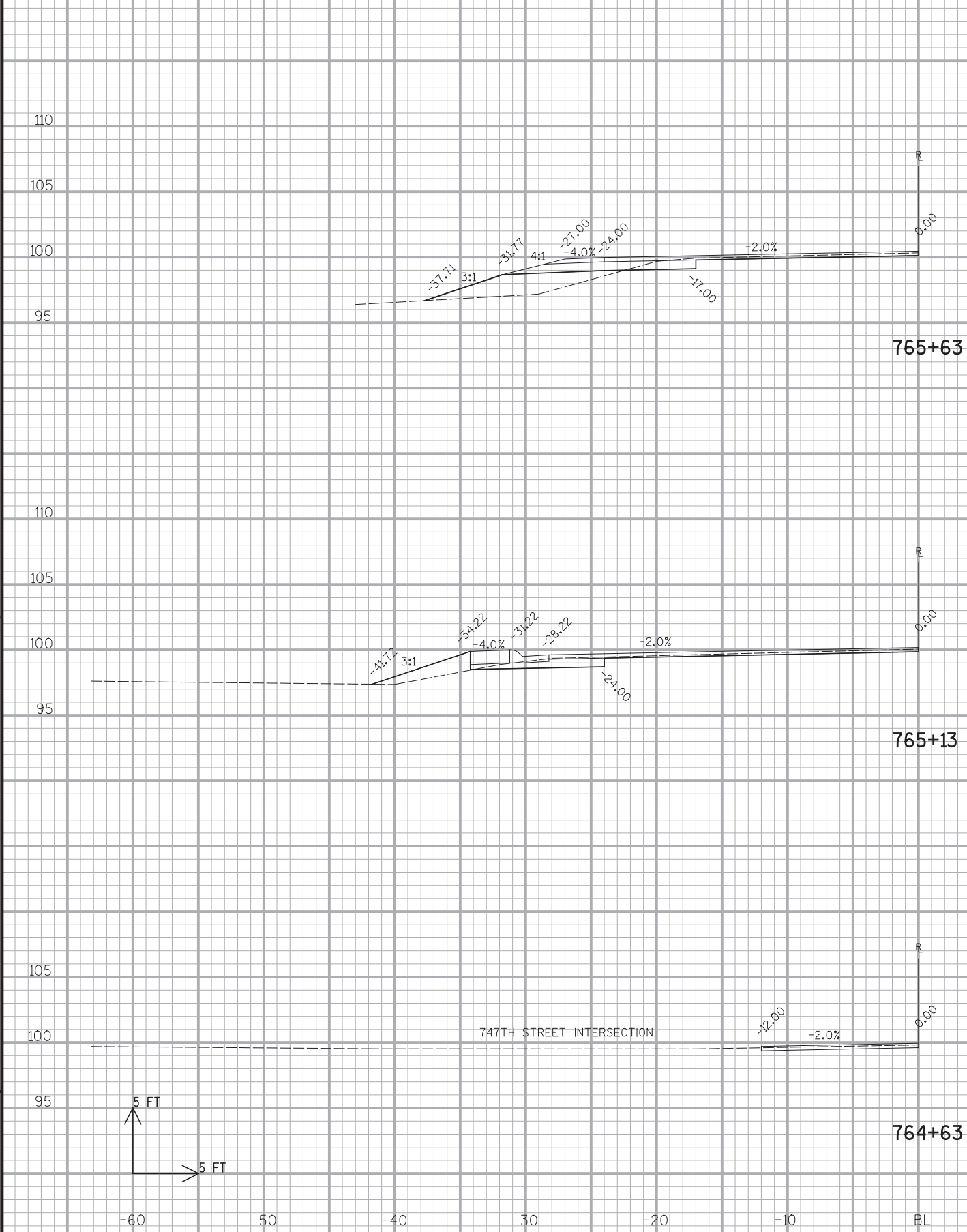




9

9

**NOTE: VERTICAL DATUM IS BASED ON AN ASSUMED ELEVATION OF 100'.



PROJECT NO: 1721-01-61

HWY: STH 35

COUNTY: PIERCE

CROSS SECTIONS: 747TH STREET RIGHT TURN LANE

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

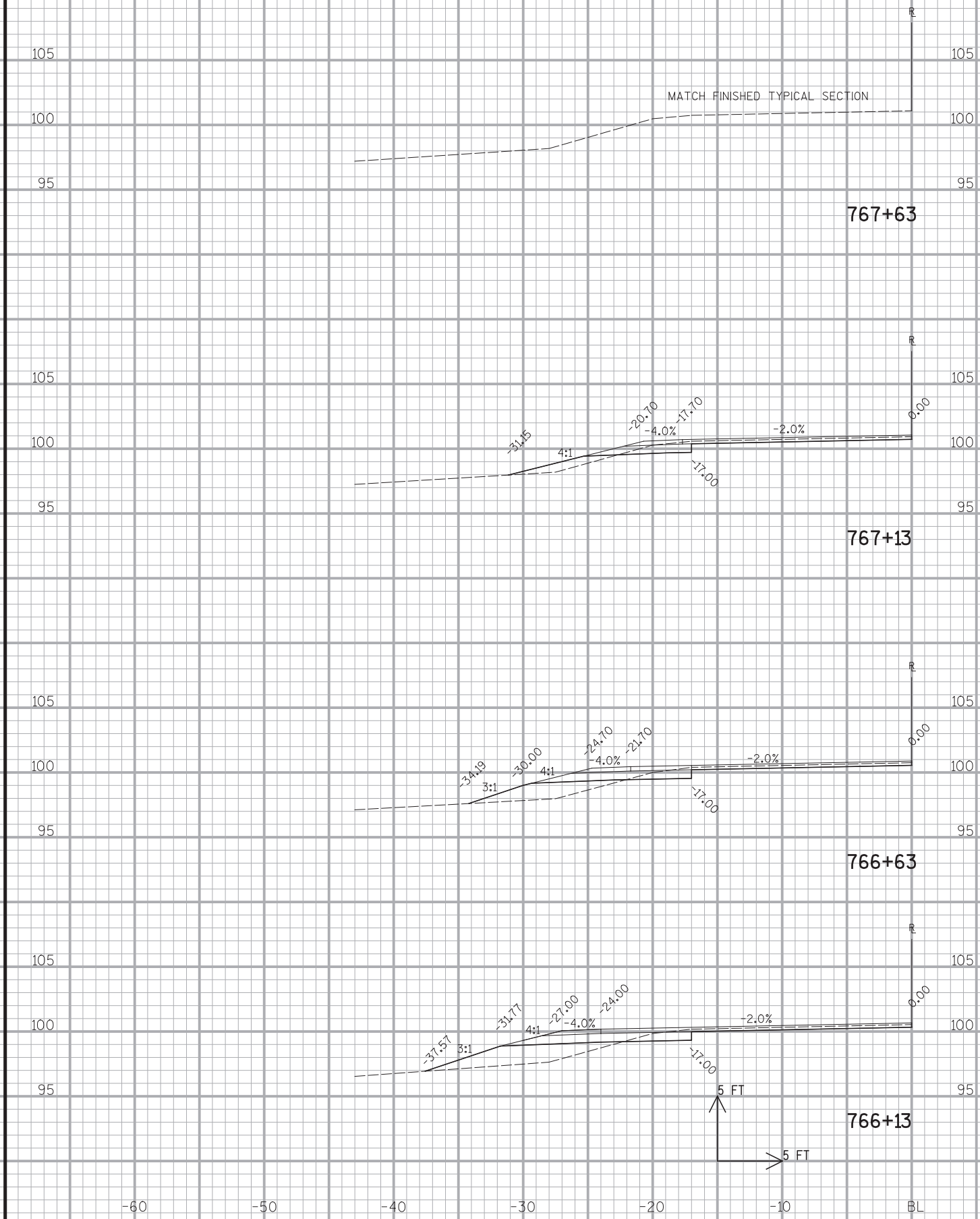
PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

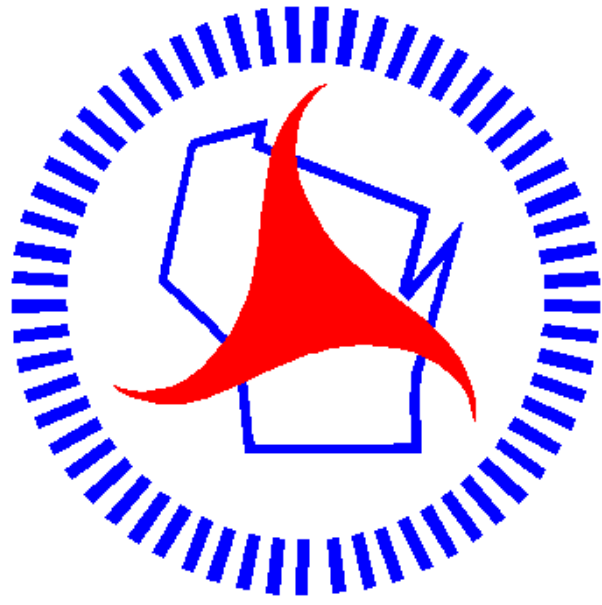
PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CAL 306

ET 21



Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>

EAU APR 13
PROJECT ID: 7180-01-61
WITH:
COUNTY: PEPIN

ORDER OF SHEETS

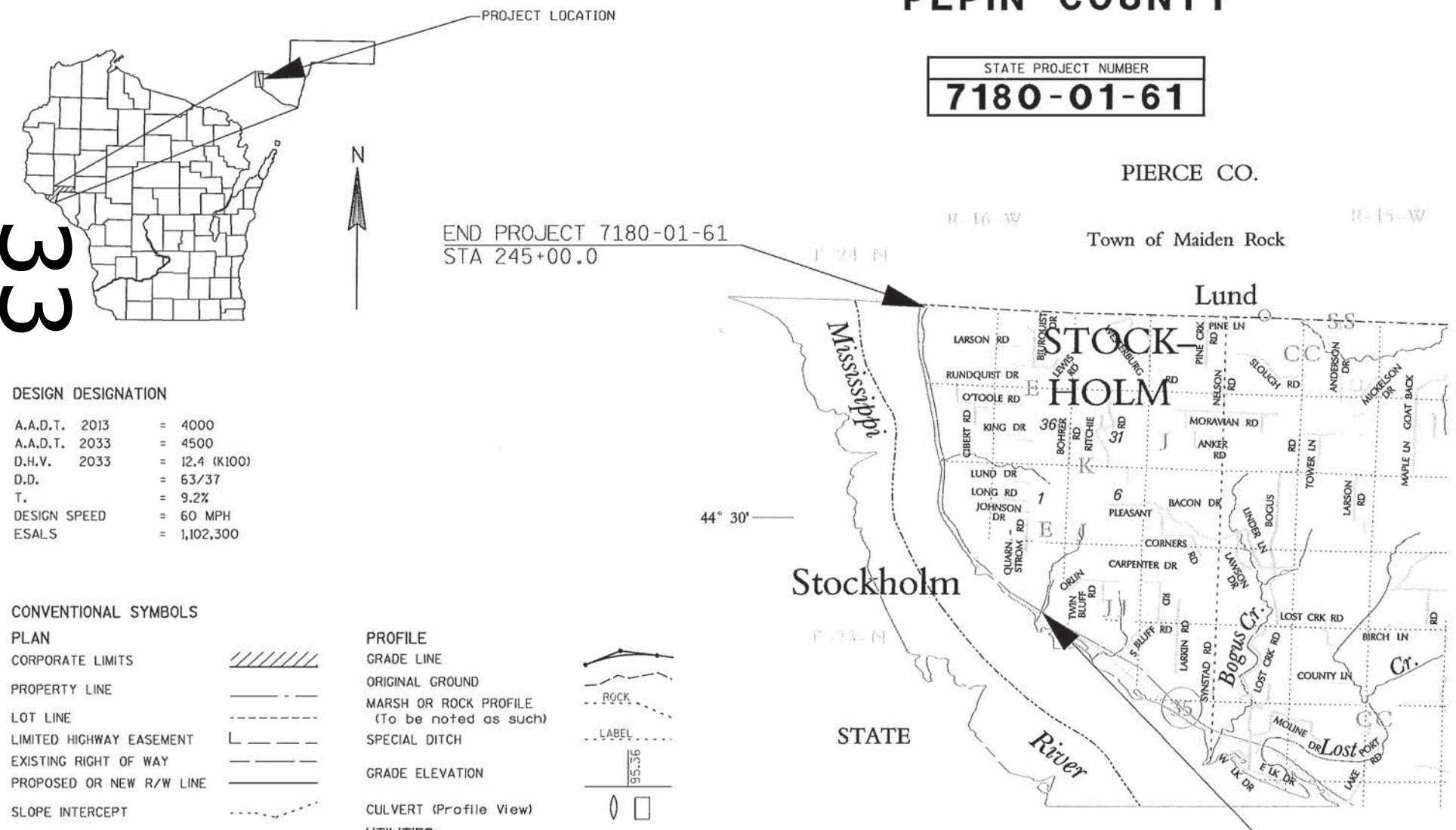
Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 5	Plan (Includes Erosion Control Plans)
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plans
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 22

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
PEPIN - HAGER CITY
ELM STREET TO NORTH COUNTY LINE
STH 35
PEPIN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7180-01-61		

STATE PROJECT NUMBER
7180-01-61



DESIGN DESIGNATION

A.A.D.T. 2013	=	4000
A.A.D.T. 2033	=	4500
D.H.V. 2033	=	12.4 (K100)
D.D.	=	63/37
T.	=	9.2%
DESIGN SPEED	=	60 MPH
ESALS	=	1,102,300

CONVENTIONAL SYMBOLS	
PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	
PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT 7180-01-61
STA 4+26.0
Y = 226442 (+/-200)
X = 540856 (+/-200)

LAYOUT
SCALE 0 1 Mi.
TOTAL NET LENGTH OF CENTERLINE = 4.56 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), PEPIN COUNTY."

ORIGINAL PLANS PREPARED BY
KNIGHT
Engineers & Architects
788 N Third Street
Suite 104
La Crosse, WI 54601-3382
Phone: (608) 519-1455

WISCONSIN
PROFESSIONAL ENGINEER
RYAN B. MCKANE
E-37669
HOLMEN, WI

10/23/2012 (Date)
Ryan B. McKane (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: KNIGHT E/A INC
Designer: KNIGHT E/A INC
Project Manager: WENDY MAVES
Regional Examiner: [Signature]
Regional Supervisor: DAVID SOLBERG

APPROVED FOR THE DEPARTMENT
DATE: 10/24/12 [Signature]
[Signature]

E

STANDARD ABBREVIATIONS

AC	ACRE	CWT	HUNDREDWEIGHT
AGG	AGGREGATE	INL	INLET
AH	AHEAD	INV	INVERT
AADT	ANNUAL AVERAGE DAILY TRAFFIC	JCT	JUNCTION
ASPH	ASPHALTIC	LT	LEFT
AVG	AVERAGE	L	LENGTH OF CURVE
BK	BACK	LIN FT or LF	LINEAR FOOT
BM	BENCH MARK	LS	LUMP SUM
BR	BRIDGE	NC	NORMAL CROWN
CL or C/L	CENTER LINE	N	NORTH
CE	COMMERCIAL ENTRANCE	NB	NORTHBOUND
CONC	CONCRETE	NO	NUMBER
CPCA	CULVERT PIPE CORRUGATED ALUMINUM	PT	POINT
CPCS	CULVERT PIPE CORRUGATED STEEL	PCC	POINT OF COMPOUND CURVE
CO	COUNTY	PC	POINT OF CURVATURE
CTH	COUNTY TRUNK HIGHWAY	PI	POINT OF INTERSECTION
CR	CREEK	PT	POINT OF TANGENCY
CABC	CRUSHED AGGREGATE BASE COURSE	PCC	PORTLAND CEMENT CONCRETE
CY or CUYD	CUBIC YARD	LB	POUND
CULV	CULVERT	PE	PRIVATE ENTRANCE
CP	CULVERT PIPE	R	RADIUS
CPCP	CULVERT PIPE CORRUGATED POLYETHYLENE	RL or R/L	REFERENCE LINE
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED	RT	RIGHT
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED	R/W	RIGHT-OF-WAY
CPRC	CULVERT PIPE REINFORCED CONCRETE	RD	ROAD
C & G	CURB AND GUTTER	SHLDR	SHOULDER
D	DEGREE OF CURVE	SB	SOUTHBOUND
DIA	DIAMETER	SF or SQ FT	SQUARE FEET
DISCH	DISCHARGE	SY or SQ YD	SQUARE YARD
E	EAST	SDD	STANDARD DETAIL DRAWINGS
EB	EASTBOUND	STH	STATE TRUNK HIGHWAYS
EL or ELEV	ELEVATION	SE	SUPERELEVATION
EW	ENDWALL	T	TANGENT
ENT	ENTRANCE	TEMP	TEMPORARY
EXC	EXCAVATION	USH	UNITED STATES HIGHWAY
EX	EXISTING	V	VELOCITY OR DESIGN SPEED
FERT	FERTILIZE	VC	VERTICAL CURVE
FE	FIELD ENTRANCE	WB	WESTBOUND
FL or F/L	FLOW LINE	YD	YARD
FT	FOOT		

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

ALL PRIVATE DRIVEWAYS AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. LIMITS TO BE DETERMINED BY THE ENGINEER.

WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ASPHALTIC SURFACE SPECIAL WEIGHT CALCULATIONS ARE BASED ON 110 LB/SY/INCH.

PLACE ASPHALTIC SURFACE SPECIAL IN TWO LIFTS. PLACE A 1" LEVELING LAYER FOLLOWED BY A 1-3/4" UPPER LAYER.

PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.

LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.

ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

CURVE DATA IS BASED ON ARC DEFINITION.

ALL DRIVEWAYS ARE TO BE ADJUSTED TO MATCH THE NEW MAINLINE PROFILE (SEE CONSTRUCTION DETAILS).

UTILITY CONTACTS

Dan Sande We Energies - Gas/Petroleum 333 W Everett St, A299 Milwaukee, WI 53203 (414) 221-4578 Dan.Sande@we-energies.com	Monty Parker CenturyLink - Communication Line 20 S Wilson Ave Rice Lake, WI 54868 (715) 234-5528 monty.parker@centurylink.com
Vern Yarwood Hager Telecom, Inc - Communication Line w8108 165th Ave P.O. Box 125 Hager City, WI 54014 (715) 792-2103	Tom Stanton Northern Natural Gas Company - Gas/Petroleum 6579 420th St Harris, MN 55032
Nancy Dotson Xcel Energy - Electricity- transmission 1414 W Hamilton Ave P.O. Box 8 Eau Claire, WI 54702-0008 (715) 737-2574 nancy.j.dotson@xcelenergy.com	Jerry Dewolfe Pierce-Pepin Electric Cooperative Electricity w7725 Us Hwy 10 P.O. Box 420 Ellsworth, WI 54011 (715) 273-4460
Nancy Dotson Xcel Energy - Electricity 1414 W Hamilton Ave P.O. Box 8 Eau Claire, WI 54702-0008 (715) 737-2574 nancy.j.dotson@xcelenergy.com	Nancy Dotson Xcel Energy - Communication Line 1414 W Hamilton Ave P.O. Box 8 Eau Claire, WI 54702-0008 (715) 737-2574 nancy.j.dotson@xcelenergy.com

AREA CONTACTS

WISDNR: PEPIN COUNTY
NICK SCHAFF
EAU CLAIRE OFFICE
1300 W CLAIREMONT AVE
EAU CLAIRE, WI 54701
PHONE: (715) 839-1609

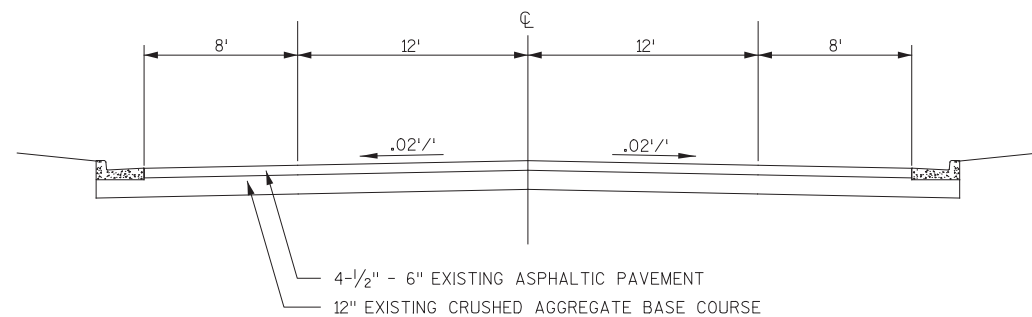
WISDOT NW Region
WENDY MAVES, P.E.
718 W. CLAIREMONT AVE
EAU CLAIRE, WI 54701
PHONE: (715) 836-3902

DESIGN CONTACT
KNIGHT E/A
RYAN MCKANE, P.E.
700 N THIRD ST., SUITE 104
LA CROSSE, WI 54601
PHONE: (608) 519-1455 EXT. #2

BNSF RAILWAY COMPANY
BEN STEINKAMP
MANAGER OF PUBLIC PROJECTS
80 44TH AVENUE NE
MINNEAPOLIS, MN 55421
PHONE: (763) 782-3495
FAX: (763) 782-3061
EMAIL: BENJAMIN.STEINKAMP@BNSF.COM

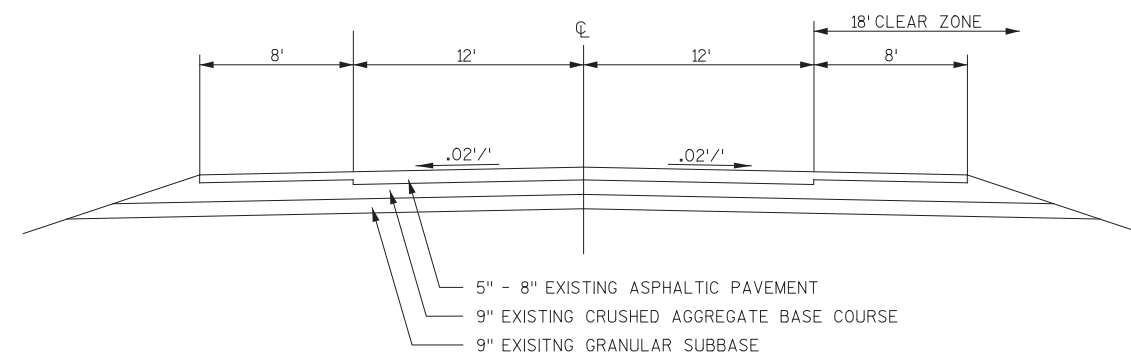


Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



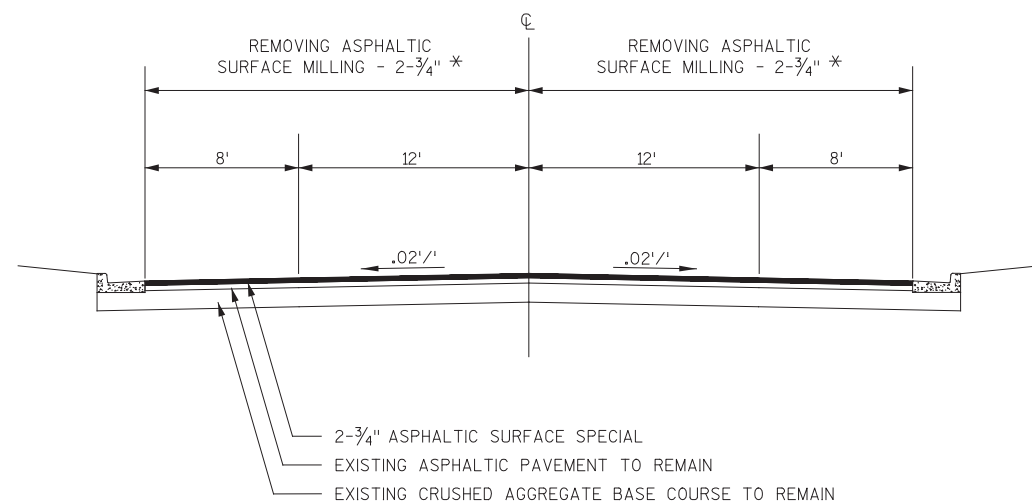
TYPICAL EXISTING TANGENT SECTION

STA 4+26 TO STA 16+23



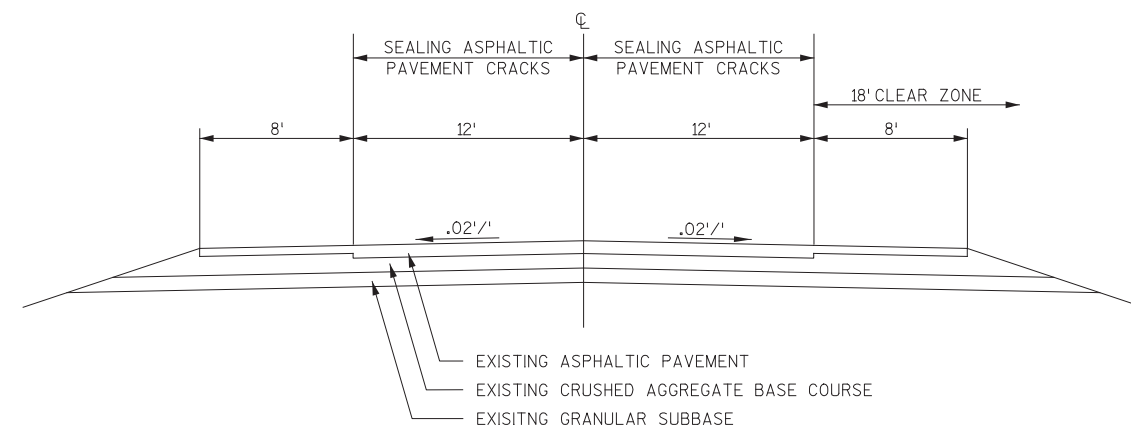
TYPICAL EXISTING TANGENT SECTION

STA 16+23 TO STA 245+00



TYPICAL FINISHED TANGENT SECTION

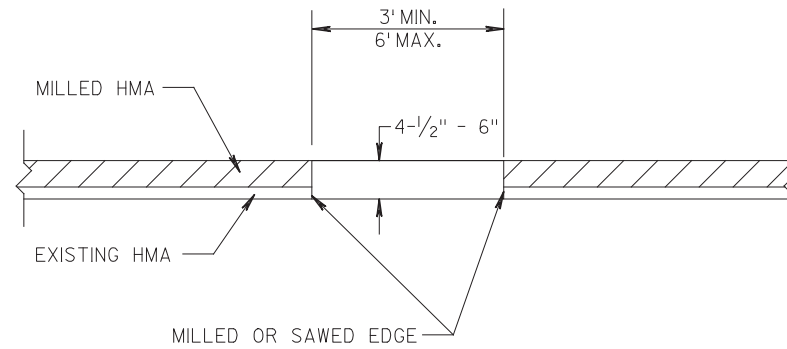
STA 4+26 TO STA 16+23



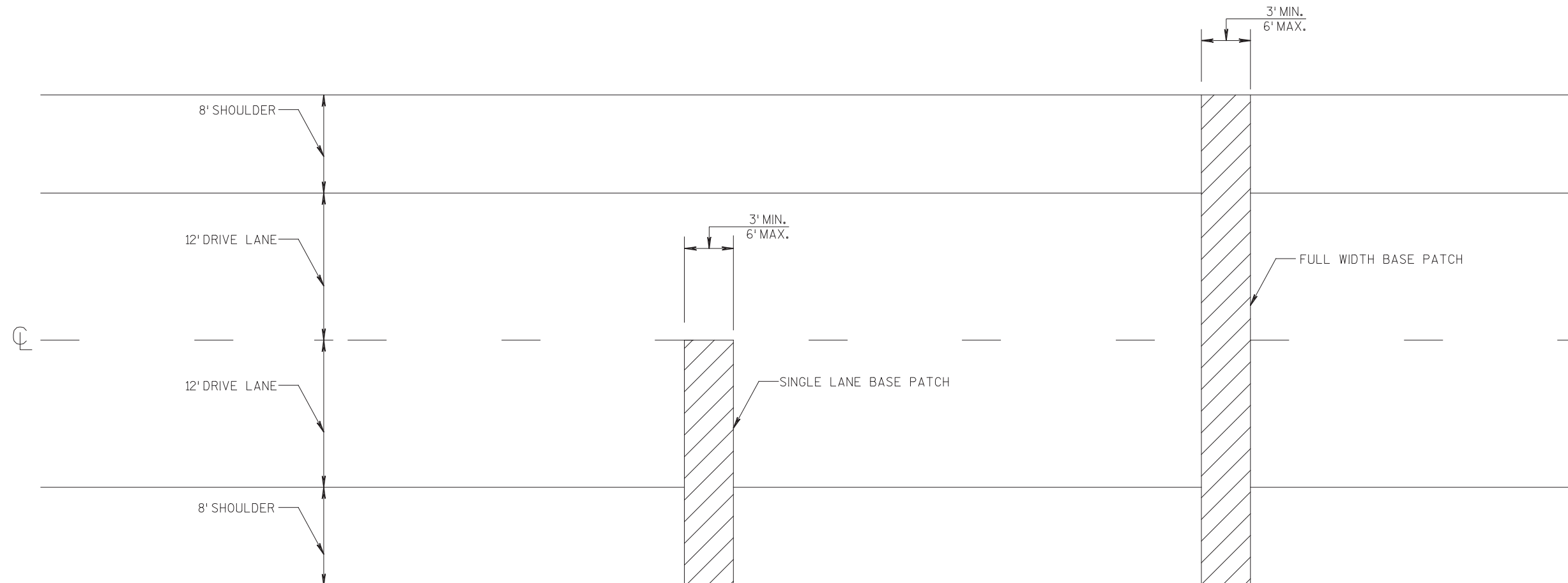
TYPICAL FINISHED TANGENT SECTION

STA 16+23 TO STA 245+00

* NOTE: SURFACE MILL SLOPE SHALL MATCH SLOPE OF PROPOSED SURFACE HMA.



BASE PATCHING ASPHALTIC SURFACE
PROFILE VIEW
STA. 4+26 TO STA. 16+23



BASE PATCHING ASPHALTIC SURFACE
PLAN VIEW
STA. 4+26 TO STA. 16+23

3

DATE 25JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE					7180-01-61
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	5,320.000	5,320.000
0160	213.0100	FINISHING ROADWAY (PROJECT) 02.	EACH	1.000	1.000
		7180-01-61			
0200	390.0203	BASE PATCHING ASPHALTIC	SY	521.000	521.000
0220	455.0605	TACK COAT	GAL	133.000	133.000
0640	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS	EACH	1.000	1.000
		(PROJECT) 02. 7180-01-61			
0650	619.1000	MOBILIZATION	EACH	0.200	0.200
0730	628.7015	INLET PROTECTION TYPE C	EACH	4.000	4.000
0940	643.0100	TRAFFIC CONTROL (PROJECT) 02. 7180-01-61	EACH	1.000	1.000
0950	643.0300	TRAFFIC CONTROL DRUMS	DAY	210.000	210.000
0990	643.0900	TRAFFIC CONTROL SIGNS	DAY	140.000	140.000
1000	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	86,993.000	86,993.000
1130	650.8000	CONSTRUCTION STAKING RESURFACING	LF	1,197.000	1,197.000
		REFERENCE			
1150	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL	LS	1.000	1.000
		CONTROL (PROJECT) 02. 7180-01-61			
1160	690.0150	SAWING ASPHALT	LF	2,090.000	2,090.000
1280	SPV.0105	SPECIAL 04. SEALING ASPHALTIC PAVEMENT	LS	1.000	1.000
		CRACKS			
1320	SPV.0195	SPECIAL 02. ASPHALTIC SURFACE SPECIAL	TON	805.000	805.000

3

REMOVING ASPHALTIC SURFACE MILLING

204.0120				
STATION	TO	STATION	LOCATION	SY
4+26	-	16+23	MAINLINE	5,320
PROJECT TOTALS =				5,320

FINISHING ROADWAY (PROJECT) 02. 7180-01-61

213.0100				
STATION	TO	STATION	LOCATION	EACH
4+26	-	16+23	PROJECT	1
PROJECT TOTALS =				1

BASE PATCHING ASPHALTIC

390.0203				
STATION	TO	STATION	LOCATION	SY
4+63	-	4+66	RT	7
4+63	-	4+69	LT	13
4+73	-	4+79	LT	13
5+00	-	5+06	LT & RT	27
5+26	-	5+29	LT & RT	13
5+35	-	5+39	LT & RT	18
5+67	-	5+73	LT & RT	27
5+84	-	5+90	LT & RT	44
6+67	-	6+73	LT & RT	27
7+06	-	7+09	RT	7
7+44	-	7+50	LT & RT	27
7+96	-	8+02	LT & RT	27
8+47	-	8+53	LT & RT	27
8+94	-	9+00	LT & RT	27
9+33	-	9+39	LT & RT	27
9+77	-	9+80	RT	7
9+95	-	9+99	LT & RT	18
10+48	-	10+51	RT	7
10+91	-	10+95	LT & RT	18
11+38	-	11+42	LT & RT	18
12+12	-	12+17	LT & RT	22
12+63	-	12+66	LT & RT	13
13+00	-	13+03	RT	7
13+39	-	13+45	LT & RT	27
14+05	-	14+08	LT & RT	13
15+08	-	15+14	LT & RT	27
16+10	-	16+13	LT & RT	13
PROJECT TOTALS =				521

40' X 10' PATCH

PAVEMENT ITEMS

				TACK COAT 455.0605 GAL	ASPHALTIC SURFACE SPECIAL SPV.0195.02 TON	REMARKS	
4+26	-	16+23	MAINLINE	133	805		
PROJECT TOTALS =				133	805		

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 7180-01-61

618.0100				
STATION	TO	STATION	LOCATION	EACH
4+26	-	16+23	PROJECT	1
PROJECT TOTALS =				1

TRAFFIC CONTROL (PROJECT) 02. 7180-01-61

				643.0100 EACH	REMARKS	
PROJECT				1		
PROJECT TOTALS =				1		

TRAFFIC CONTROL DRUMS

					643.0300		
STATION	TO	STATION	LOCATION	EACH	# OF DAYS	DAYS	REMARKS
4+26	-	16+23	MAINLINE	35	6	210	
PROJECT TOTALS =						210	

TRAFFIC CONTROL SIGNS

								643.0900		
STATION	DIR	LOCATION	DESCRIPTION	SIGN CODE	EACH	# OF DAYS	DAYS	REMARKS		
0+00	NB	RIGHT	ROAD WORK AHEAD	W20-1	1	20	20			
247+50	NB	RIGHT	END ROAD WORK	G20-2	1	20	20			
265+00	SB	LEFT	ROAD WORK AHEAD	W20-1	1	20	20			
1+76	SB	LEFT	END ROAD WORK	G20-2	1	20	20			
13+50 A	-	LEFT	ROAD WORK AHEAD	W20-1	1	20	20	ELM STREET		
13+50 B	-	LEFT	ROAD WORK AHEAD	W20-1	1	20	20	MAIN STREET		
13+50 C	-	LEFT	ROAD WORK AHEAD	W20-1	1	20	20	WALNUT STREET		

PROJECT TOTALS = 140

3

MOBILIZATION

619.1000			
STATION	LOCATION	EACH	REMARKS
PROJECT		0.2	
PROJECT TOTALS =		0.2	

INLET PROTECTION TYPE C

628.0715					
STATION	TO	STATION	LOCATION	EACH	REMARKS
4+26	-	16+23	LT & RT	4	
PROJECT TOTALS =				4	

CONSTRUCTION STAKING RESURFACING REFERENCE

650.8000				
STATION	TO	STATION	LOCATION	LF
4+26	-	16+23	MAINLINE	1,197
PROJECT TOTALS =				1,197

PAVEMENT MARKING EPOXY 4-INCH

646.0106					
STATION	TO	STATION	LOCATION	LF	REMARKS
4+26	-	7+80	MAINLINE	443	NB SOLID, SB SKIP
7+80	-	16+23	MAINLINE	1,686	DOUBLE YELLOW
16+23	-	39+50	MAINLINE	4,654	DOUBLE YELLOW
39+50	-	52+50	MAINLINE	1,625	SB SOLID, NB SKIP
52+50	-	55+00	MAINLINE	500	DOUBLE YELLOW
55+00	-	61+00	MAINLINE	750	NB SOLID, SB SKIP
61+00	-	149+00	MAINLINE	17,600	DOUBLE YELLOW
149+00	-	165+00	MAINLINE	2,000	SB SOLID, NB SKIP
165+00	-	190+00	MAINLINE	625	SKIP
190+00	-	196+00	MAINLINE	750	NB SOLID, SB SKIP
196+00	-	201+00	MAINLINE	125	SKIP
201+00	-	207+00	MAINLINE	750	SB SOLID, NB SKIP
207+00	-	210+00	MAINLINE	600	DOUBLE YELLOW
210+00	-	213+50	MAINLINE	438	NB SOLID, SB SKIP
213+50	-	245+00	MAINLINE	6,300	DOUBLE YELLOW
4+26	-	245+00	MAINLINE	24,074	NB WHITE EDGELINE
4+26	-	245+00	MAINLINE	24,074	SB WHITE EDGELINE
PROJECT TOTALS =				86,993	

SEALING ASPHALTIC PAVEMENT CRACKS

SPV.0105.04				
STATION	TO	STATION	LOCATION	LS
16+23	-	245+00	MAINLINE	1
PROJECT TOTALS =				1

SAWING ASPHALT

690.0150				
STATION	TO	STATION	LOCATION	LF
4+26			MAINLINE	40
16+23			MAINLINE	40
4+63	-	4+66	RT	43
4+63	-	4+69	LT	46
4+73	-	4+79	LT	46
5+00	-	5+06	LT & RT	86
5+26	-	5+29	LT & RT	83
5+35	-	5+39	LT & RT	84
5+67	-	5+73	LT & RT	86
5+84	-	5+90	LT & RT	90
6+67	-	6+73	LT & RT	86
7+06	-	7+09	RT	43
7+44	-	7+50	LT & RT	86
7+96	-	8+02	LT & RT	86
8+47	-	8+53	LT & RT	86
8+94	-	9+00	LT & RT	86
9+33	-	9+39	LT & RT	86
9+77	-	9+80	RT	43
9+95	-	9+99	LT & RT	84
10+48	-	10+51	RT	43
10+91	-	10+95	LT & RT	84
11+38	-	11+42	LT & RT	84
12+12	-	12+17	LT & RT	85
12+63	-	12+66	LT & RT	83
13+00	-	13+03	RT	43
13+39	-	13+45	LT & RT	86
14+05	-	14+08	LT & RT	83
15+08	-	15+14	LT & RT	86
16+10	-	16+13	LT & RT	83
PROJECT TOTALS =				2090

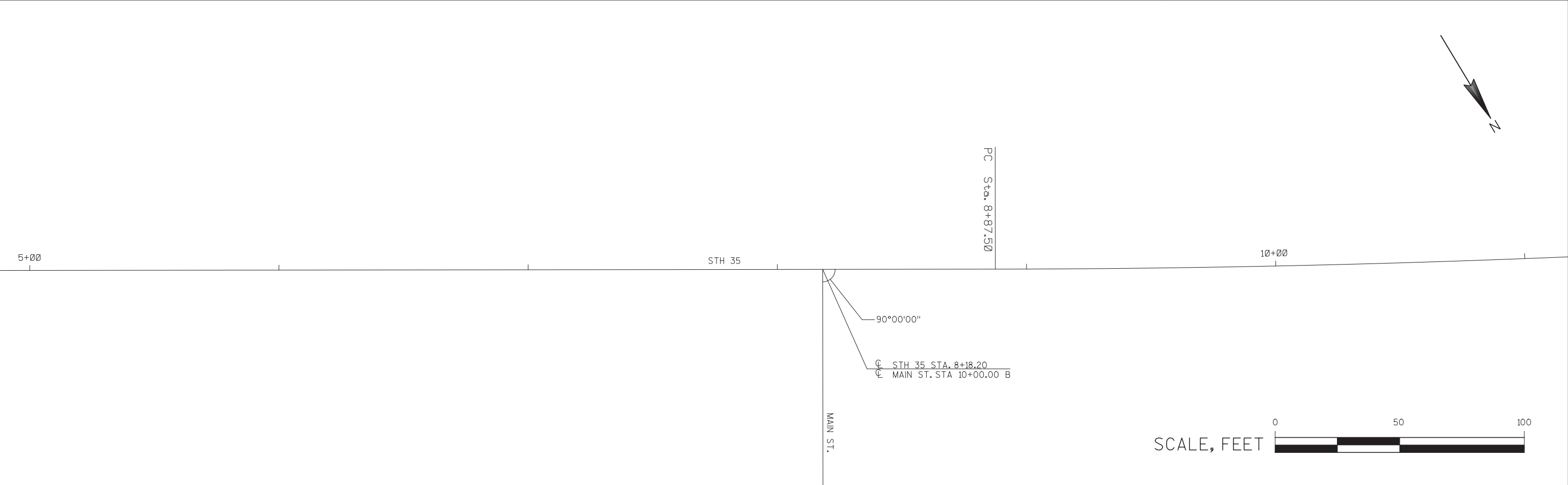
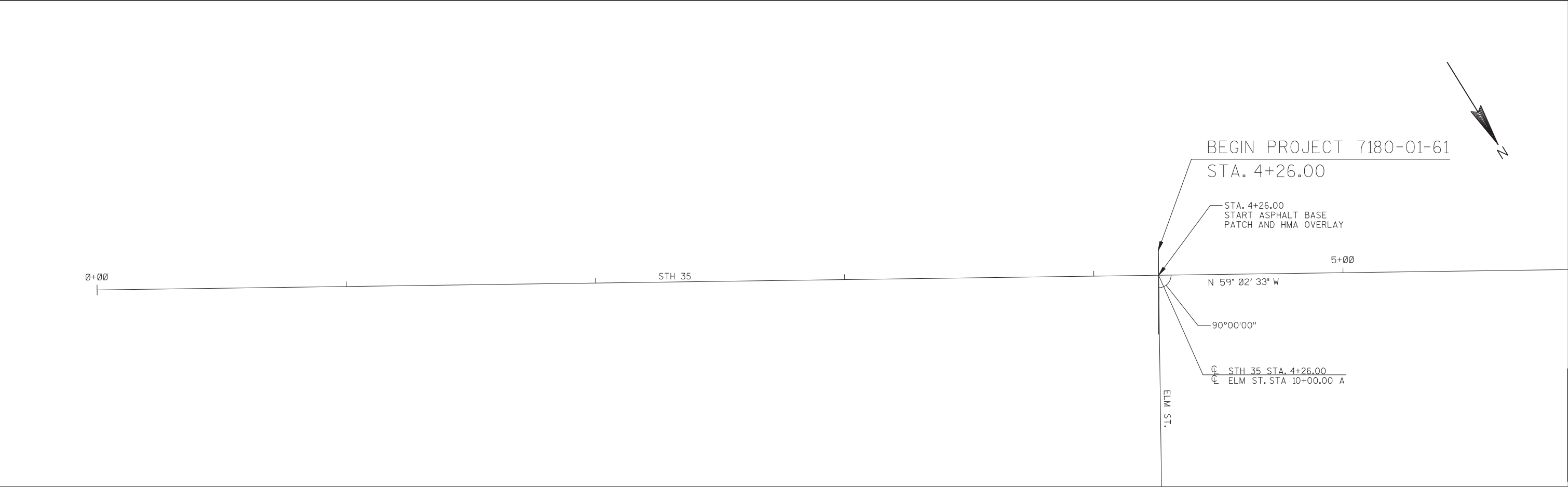
40' X 10' PATCH

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 7180-01-61

650.9910				
STATION	TO	STATION	LOCATION	LS
4+26	-	16+23	PROJECT	1
PROJECT TOTALS =				1

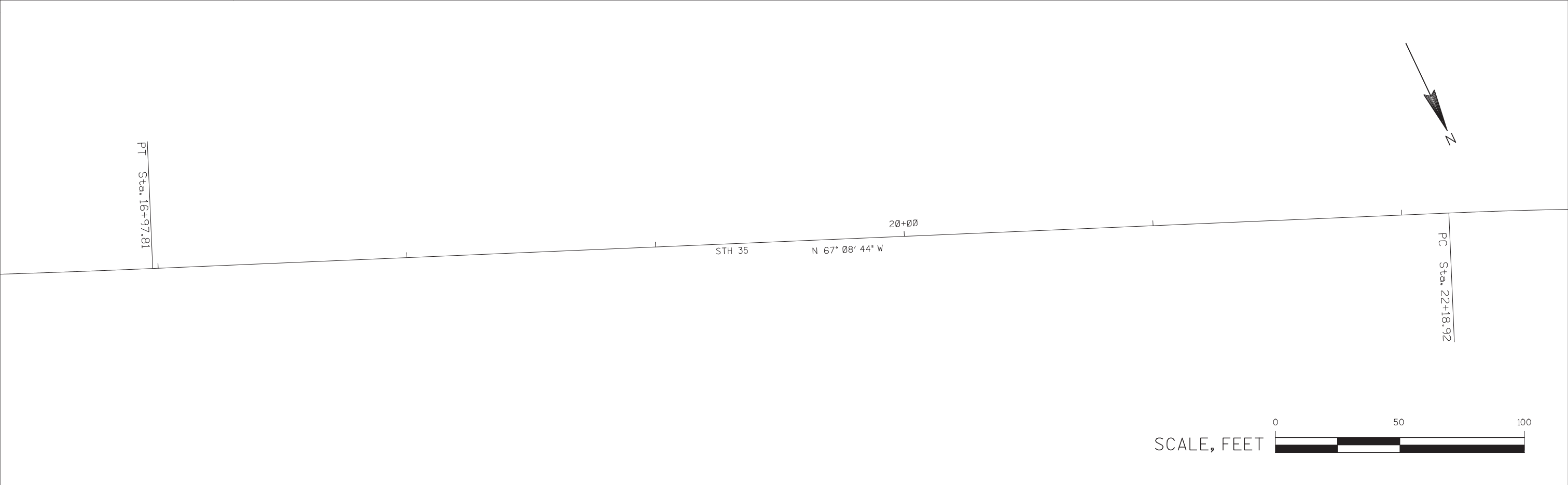
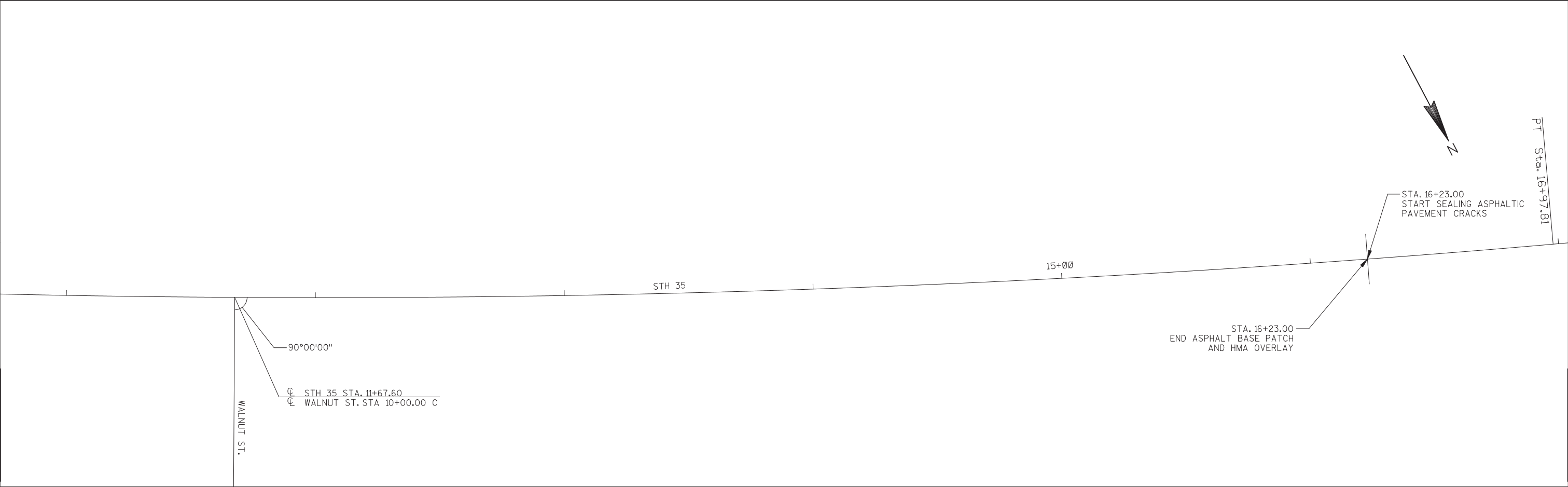
5

5



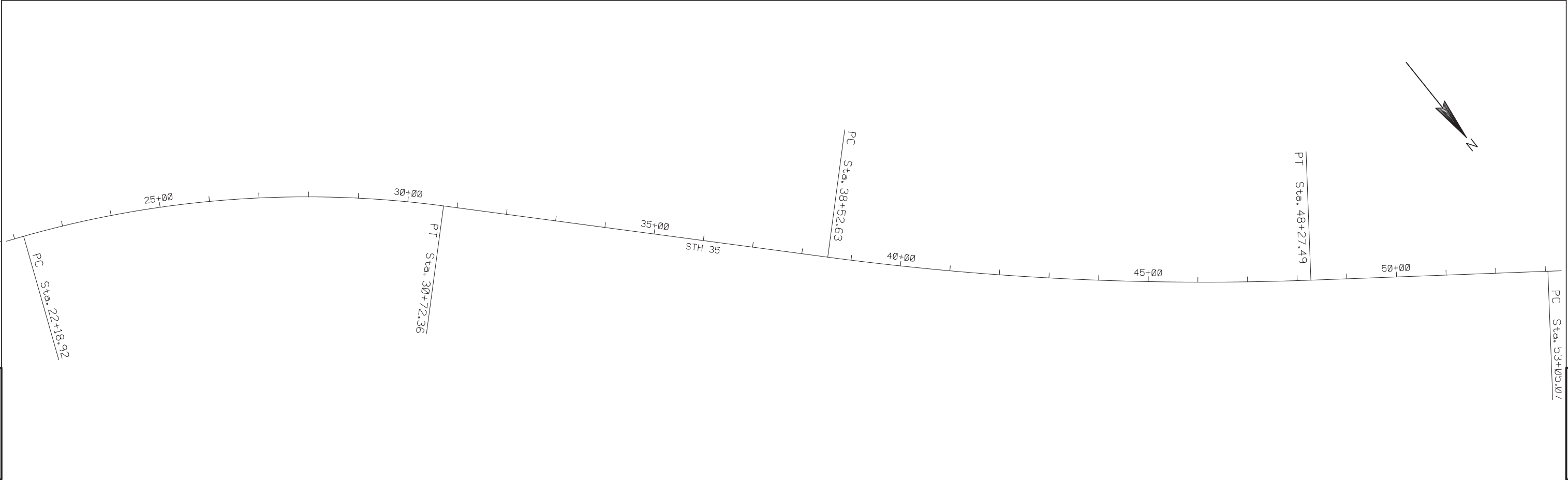
5

5

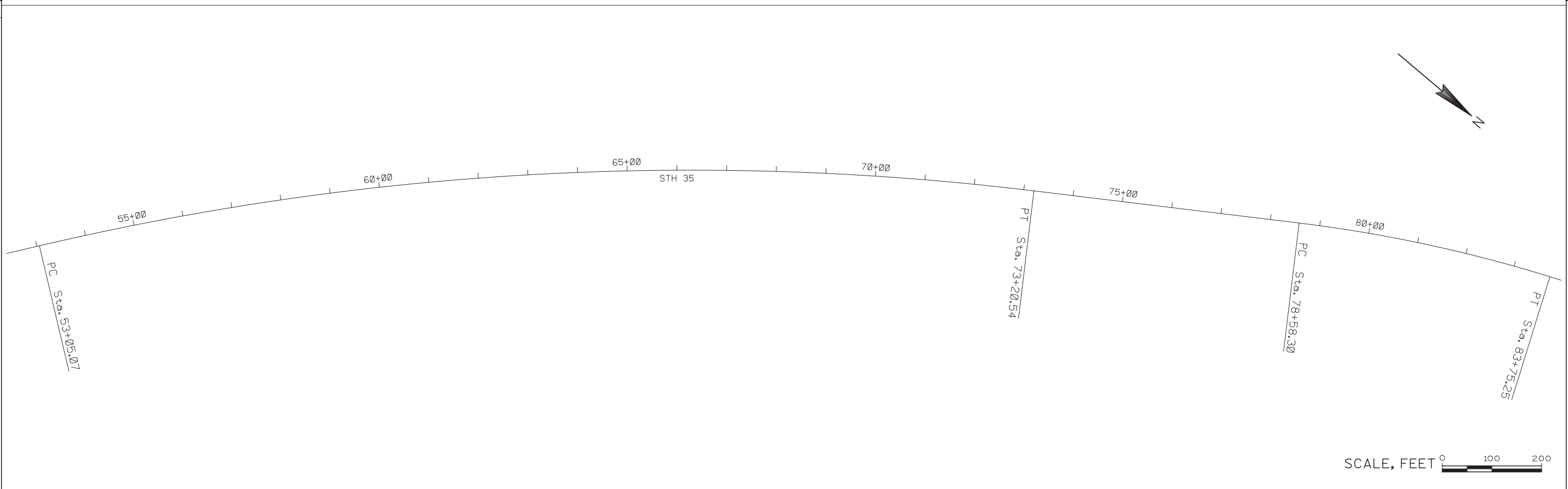


PROJECT NO: 7180-01-61	HWY: STH 35	COUNTY: PEPIN	PLAN	SHEET	E
------------------------	-------------	---------------	------	-------	---

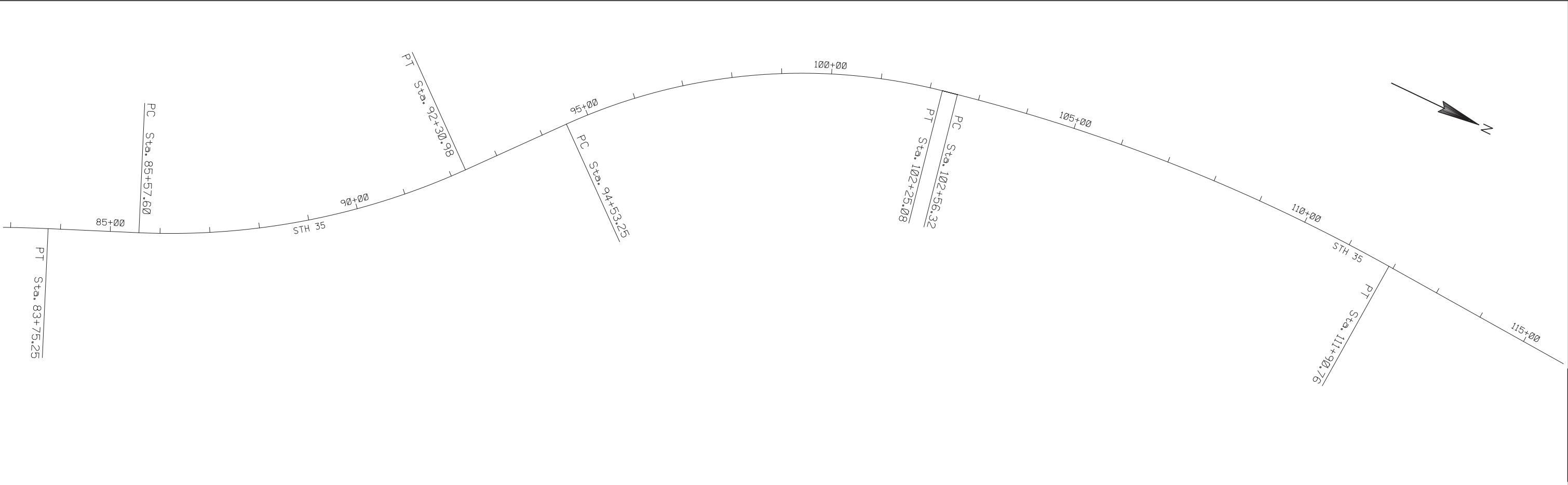
5



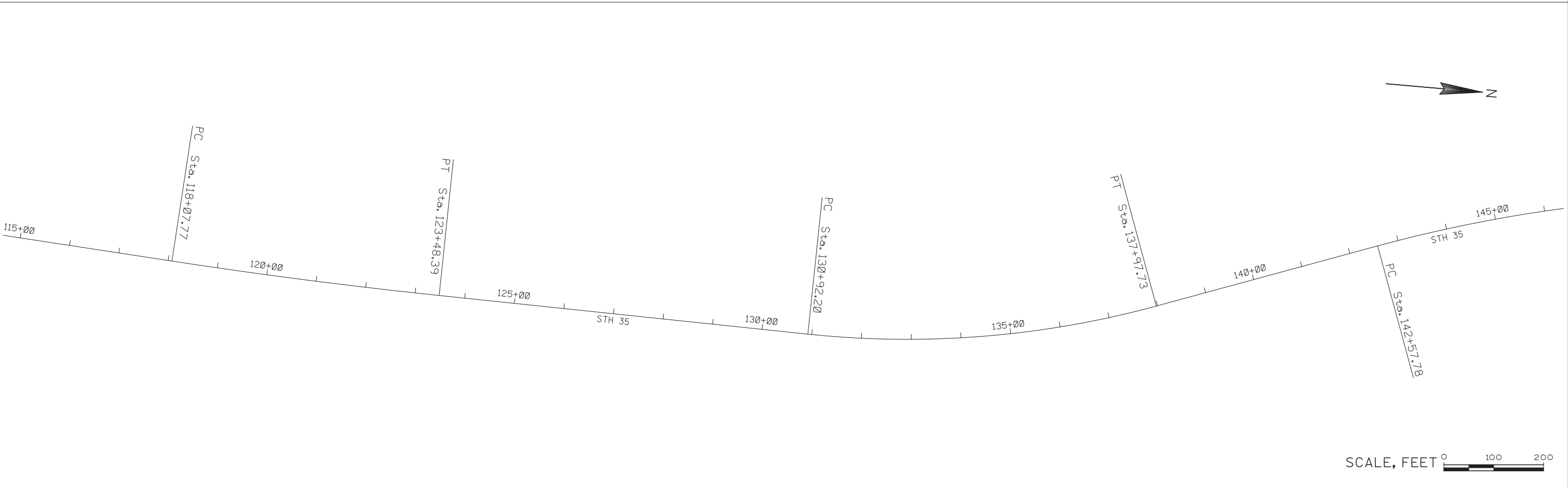
5



5



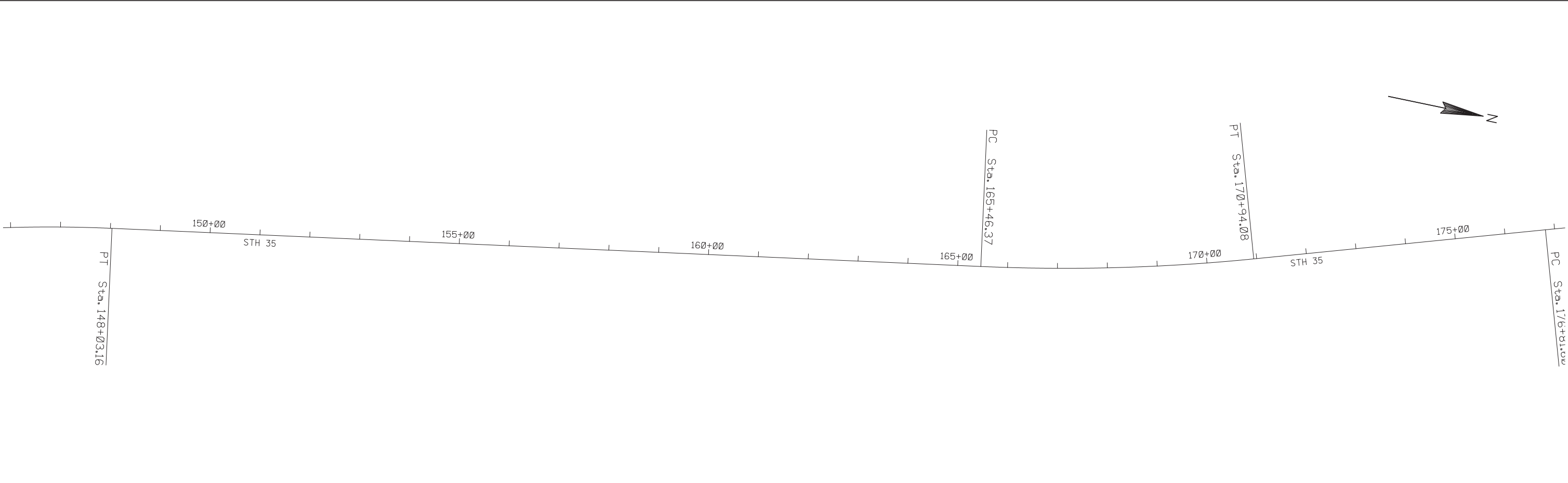
5



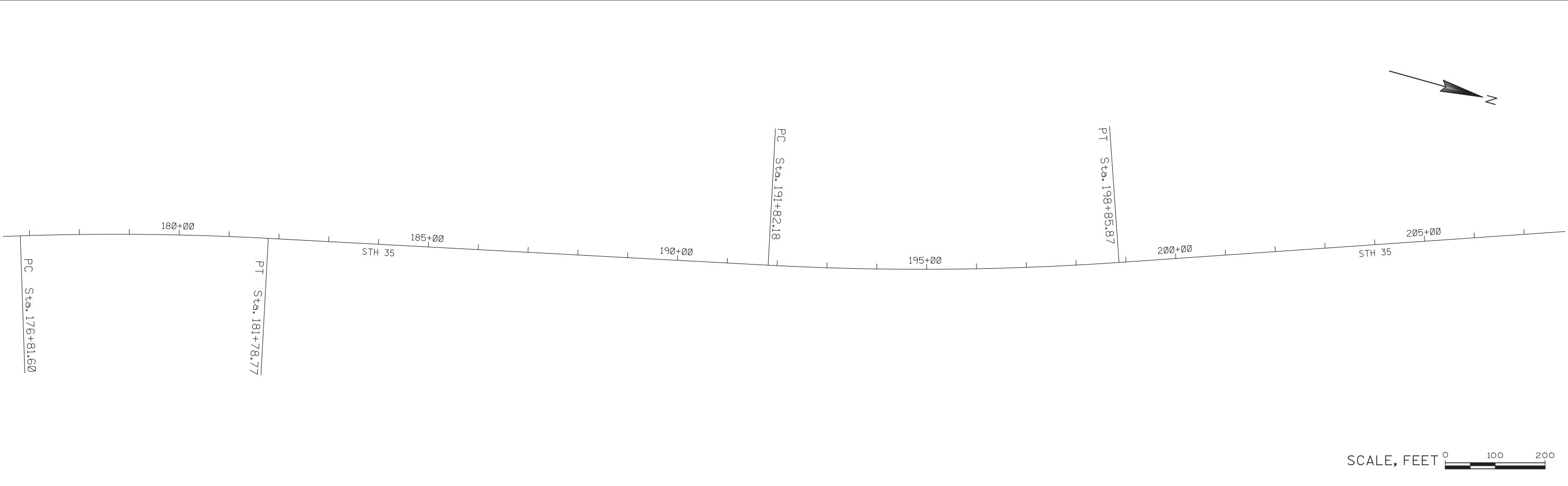
SCALE, FEET 0 100 200

PROJECT NO: 7180-01-61	HWY: STH 35	COUNTY: PEPIN	PLAN	SHEET	E
------------------------	-------------	---------------	------	-------	---

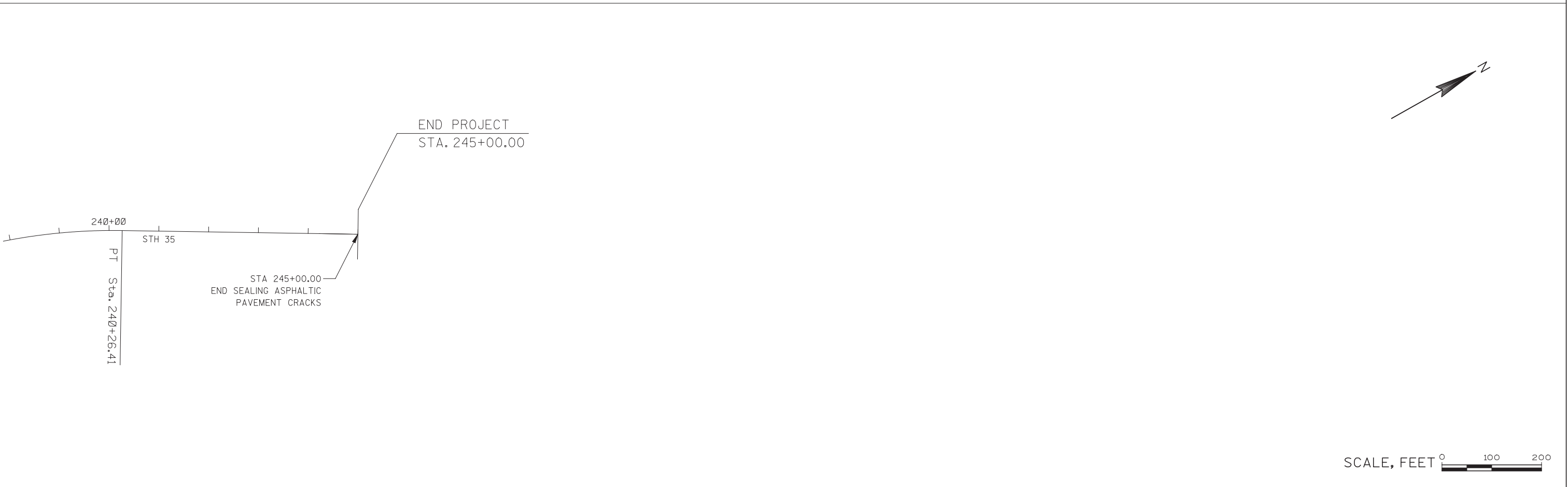
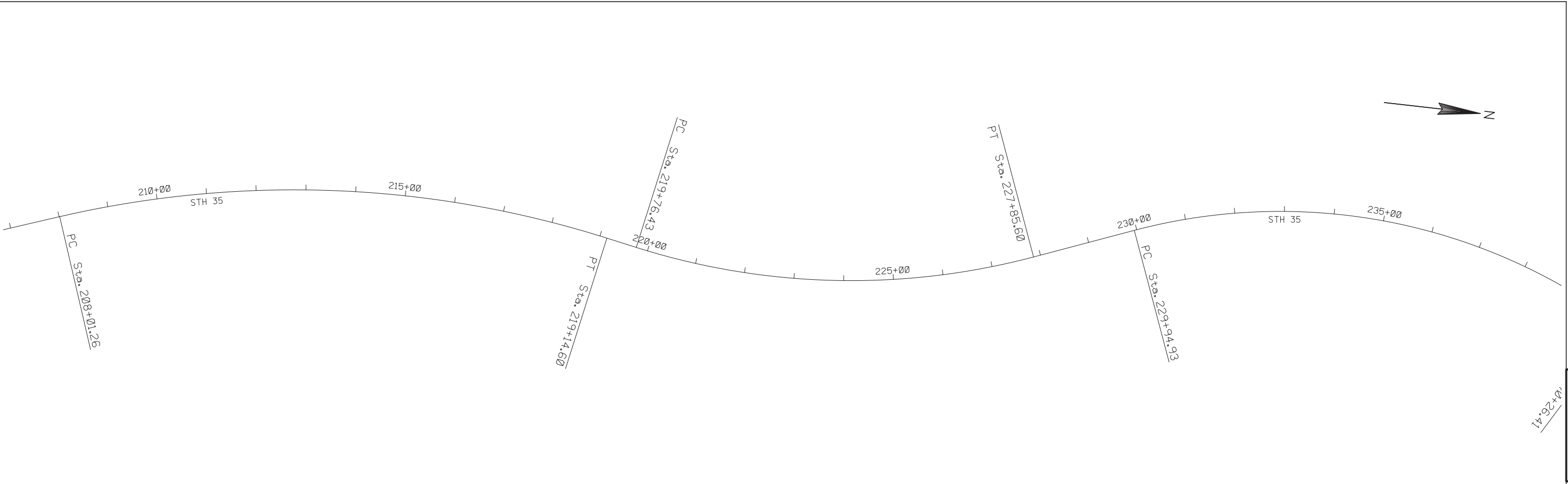
5



5



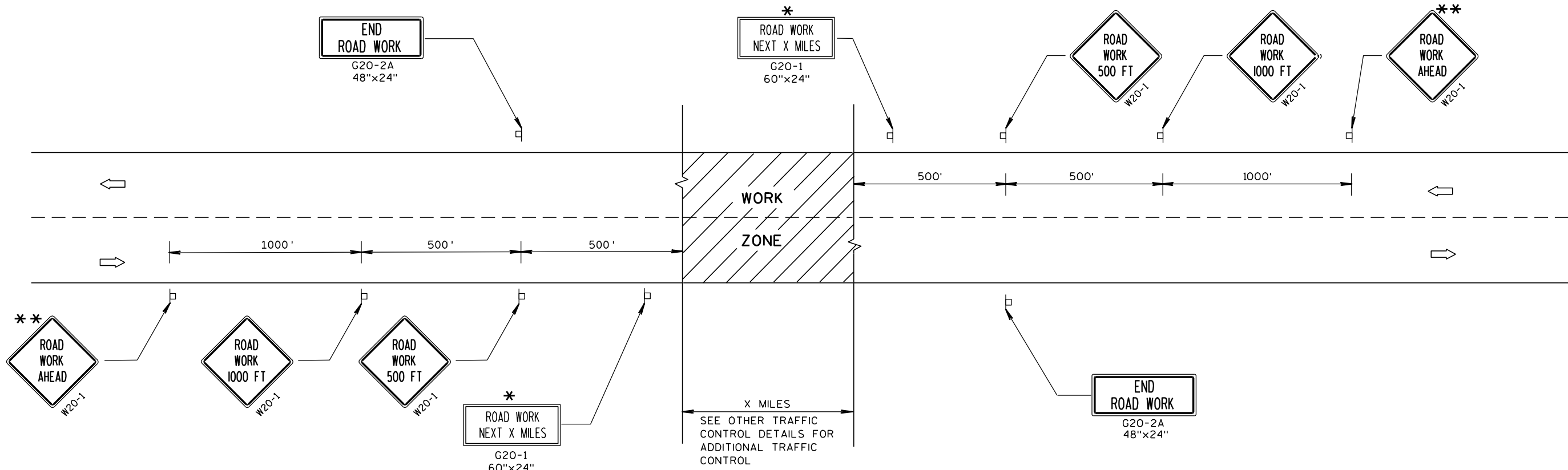
SCALE, FEET 0 100 200



PROJECT NO: 7180-01-61	HWY: STH 35	COUNTY: PEPIN	PLAN	SHEET	E
------------------------	-------------	---------------	------	-------	---

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

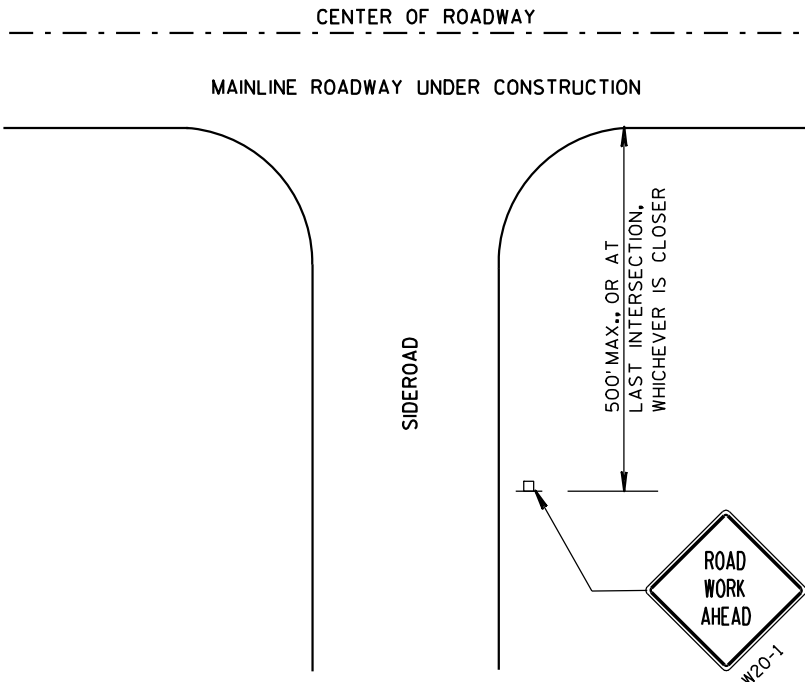
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.



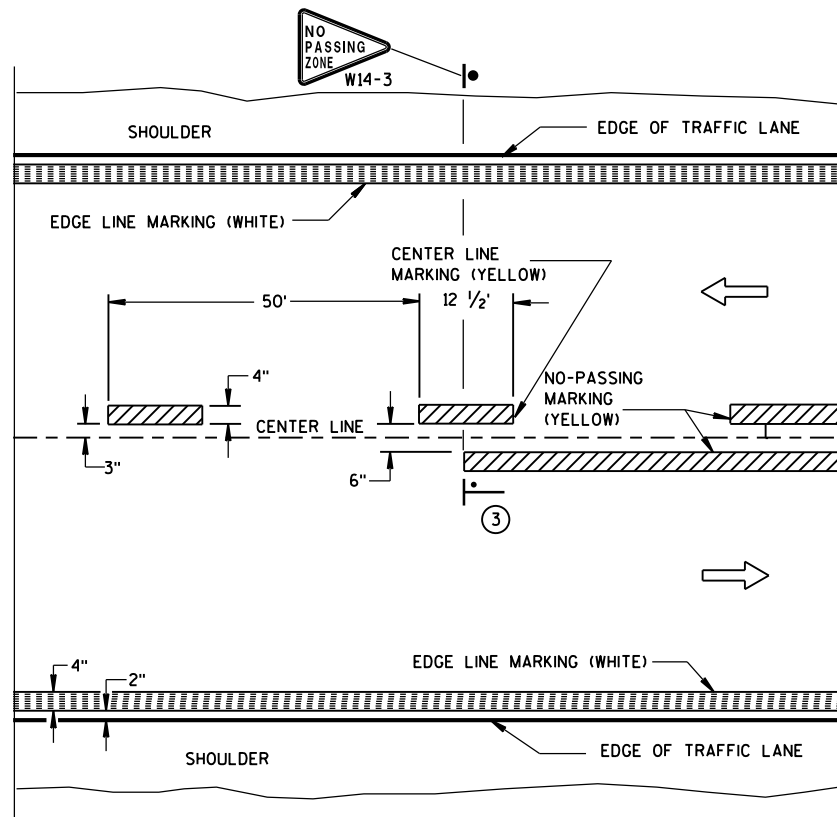
LEGEND

- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

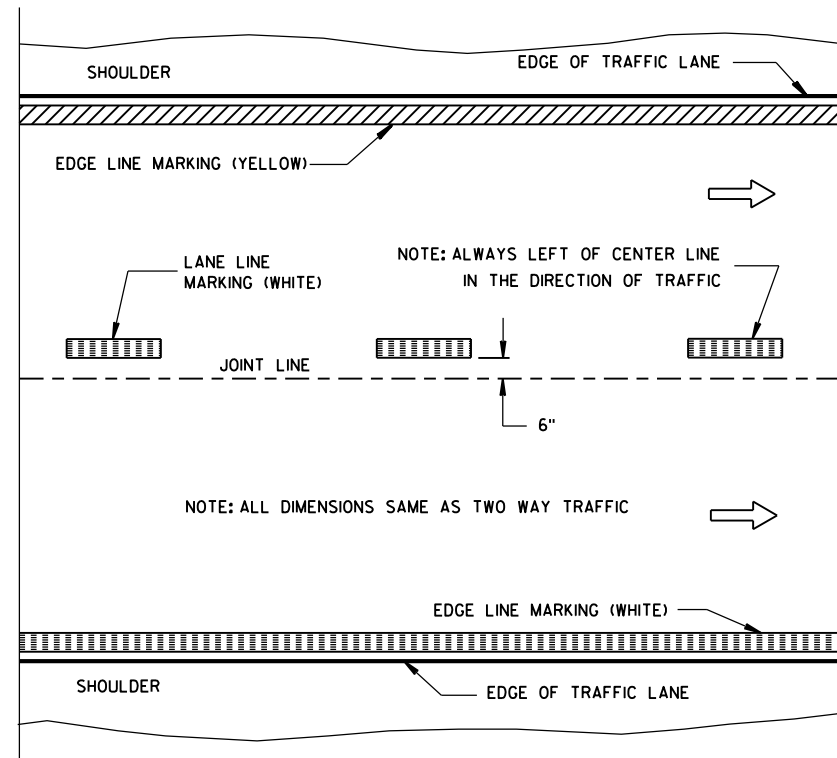
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. NEER
DATE CHIEF SIGNS AND MARKINGS
FHWA

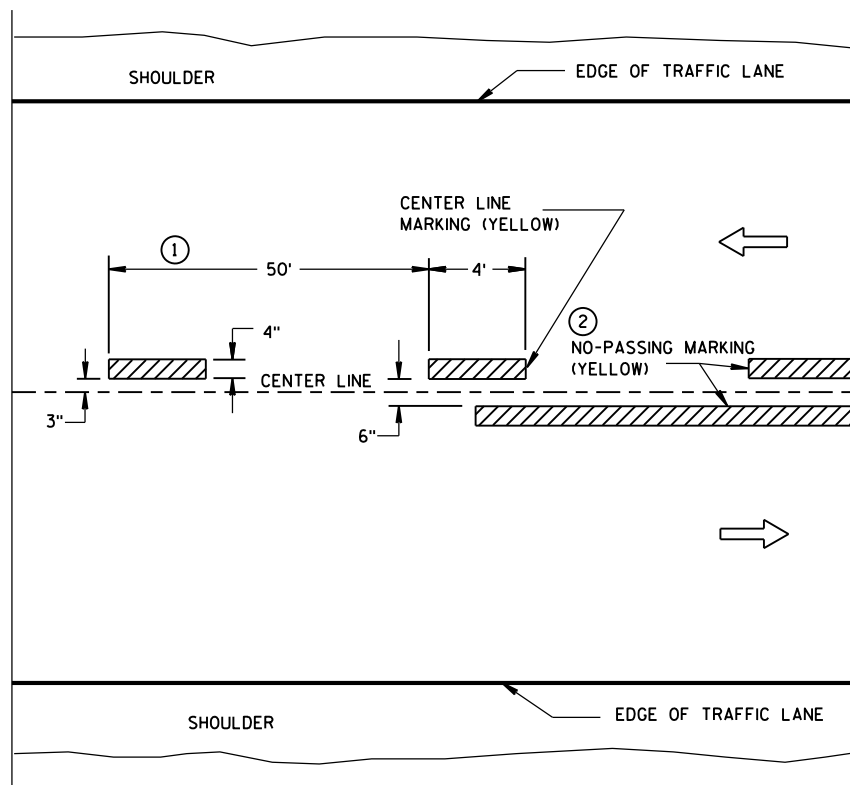


TWO WAY TRAFFIC

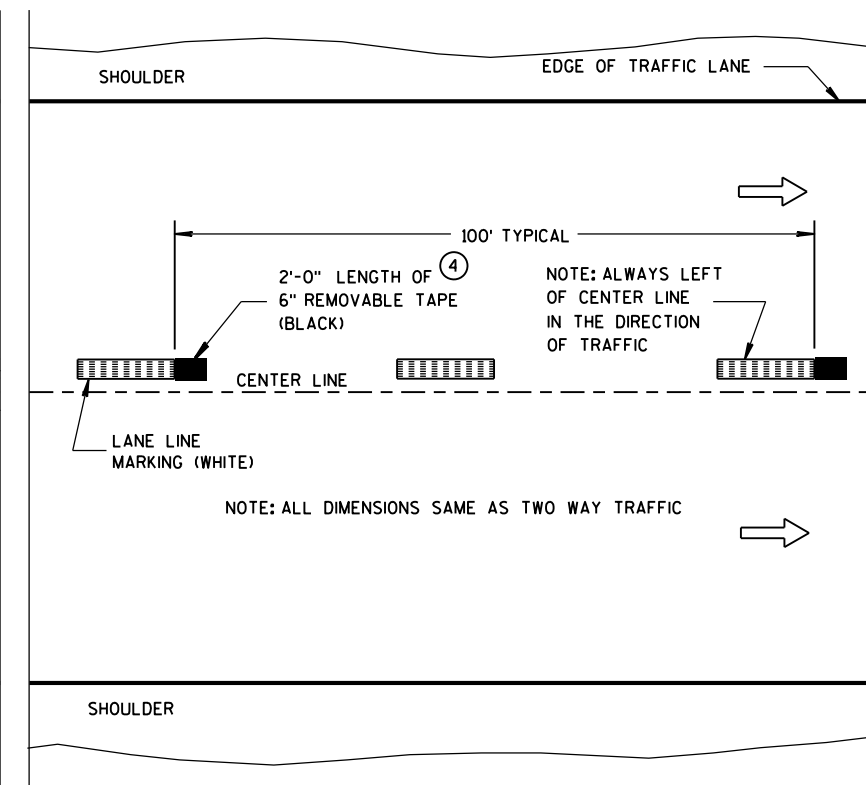


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

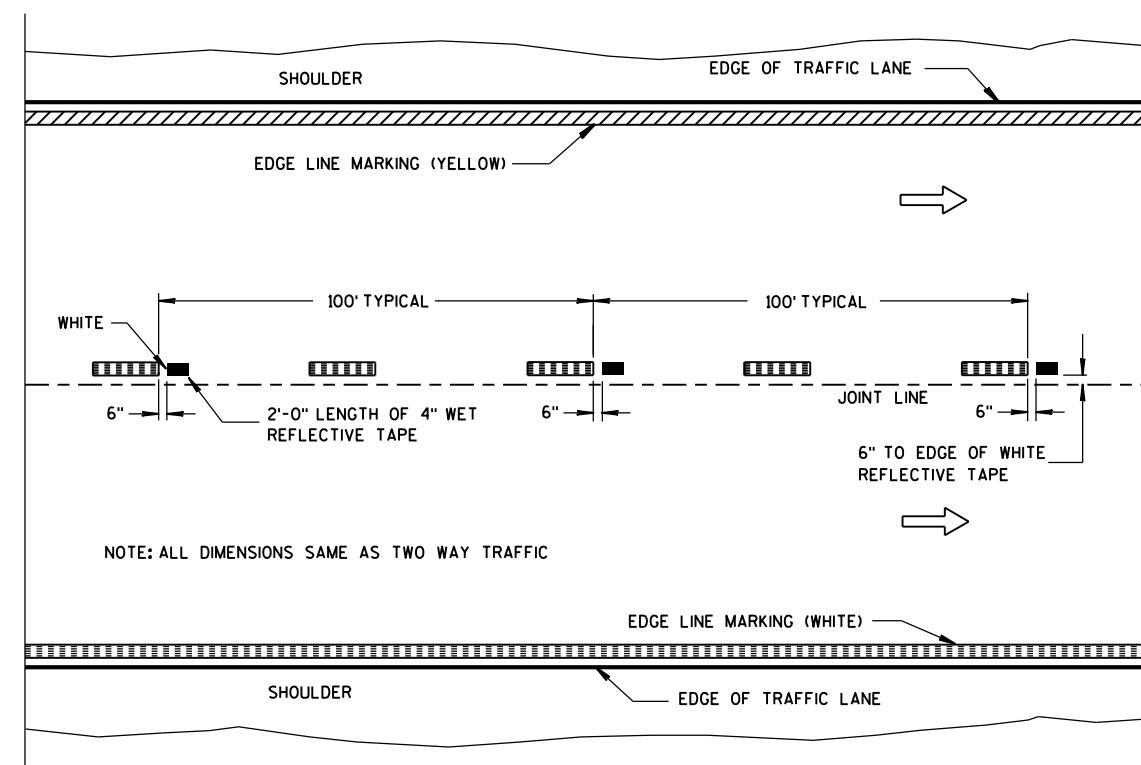
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER 18 :SIGN
FHWA

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



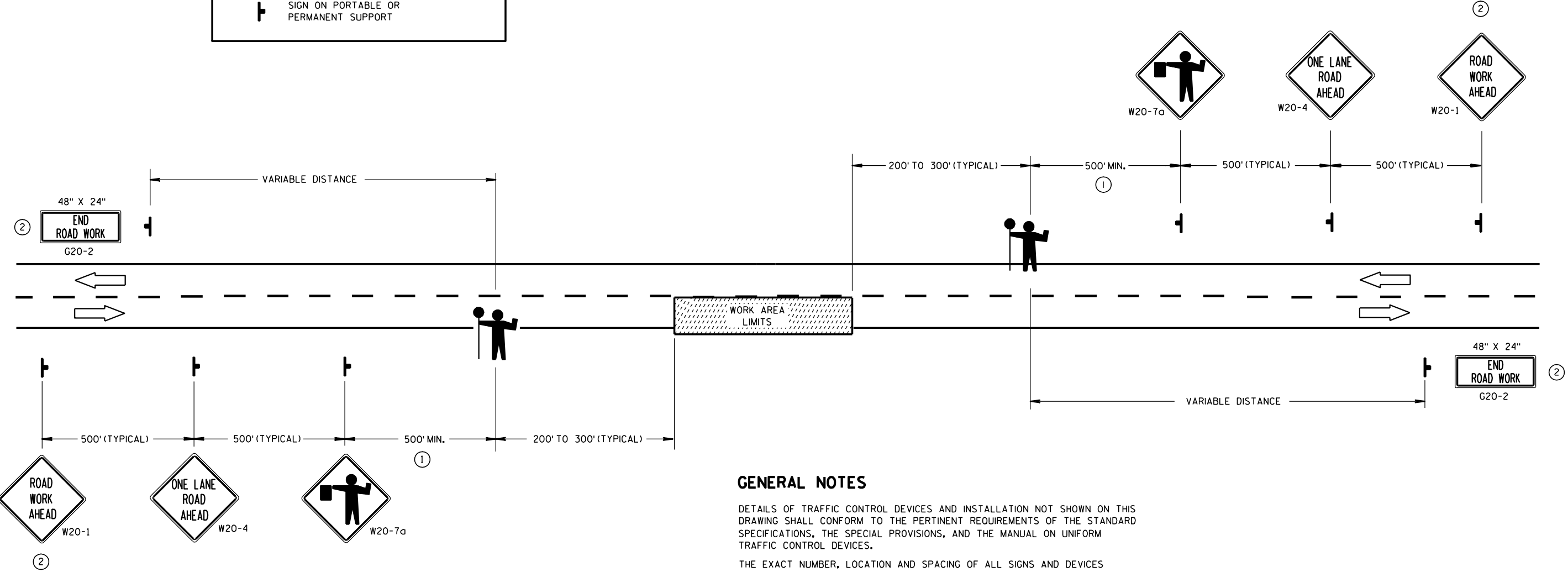
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

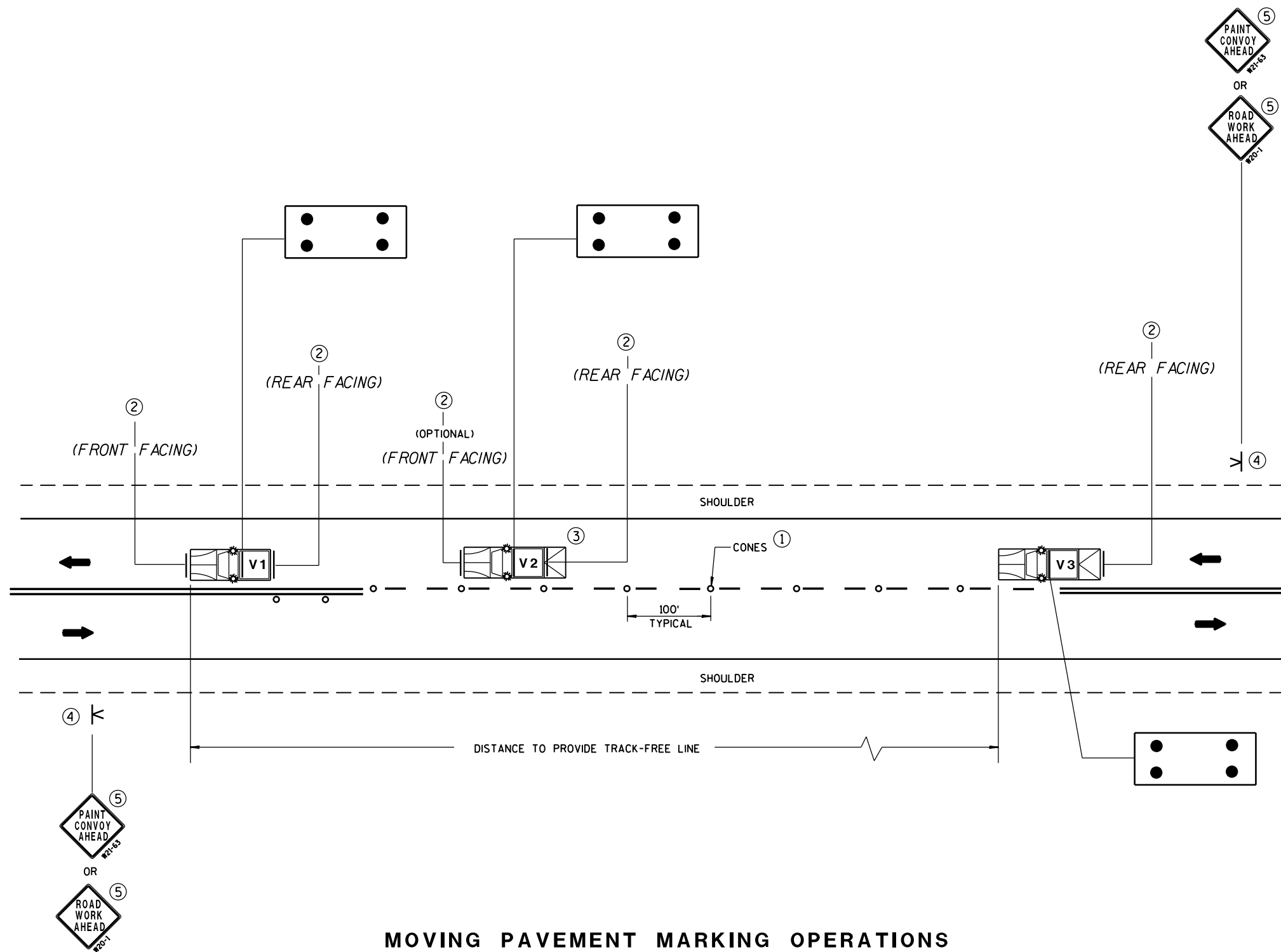
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED		
9/5/06	/S/ Thomas N. Nothnau	
DATE	STATE TRAFFIC ENGINE	DESIGN
FHWA	19	



MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

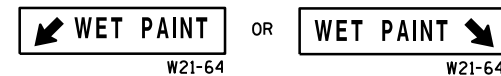
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

K SIGN ON PORTABLE SUPPORT

→ DIRECTION OF TRAVEL

○ CONES

⋮ FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/6/2011
DATE

FHWA

/s/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER

20

SIGN

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

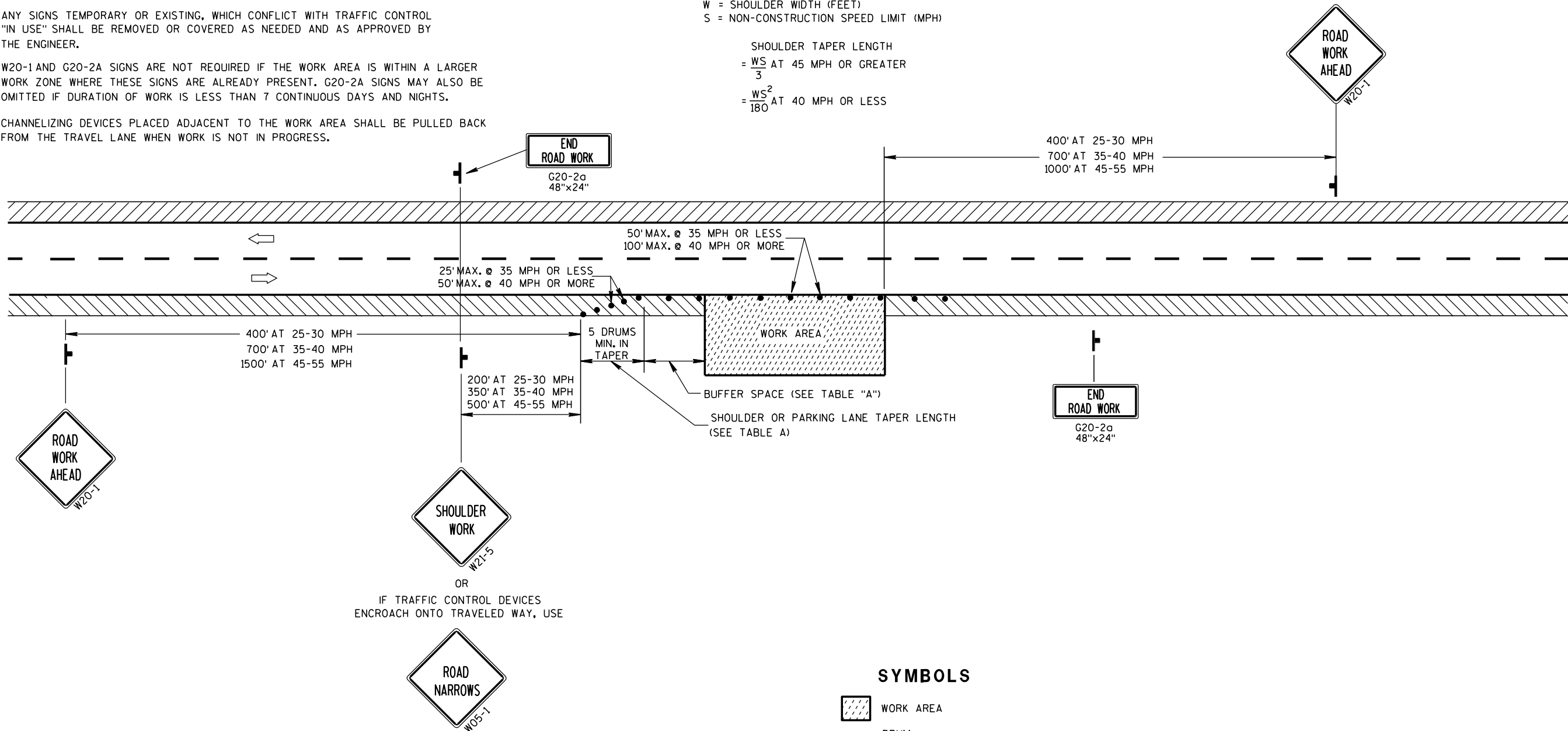
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



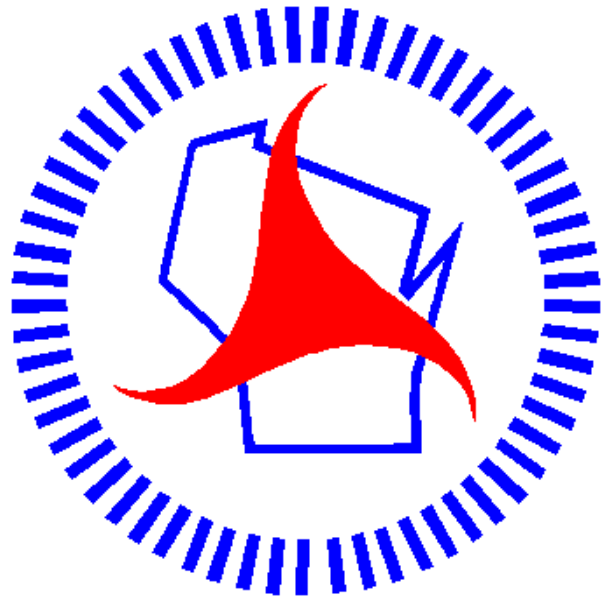
SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. NNEER
DATE CHIEF SIGNS AND MARK 21
FHWA



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>